

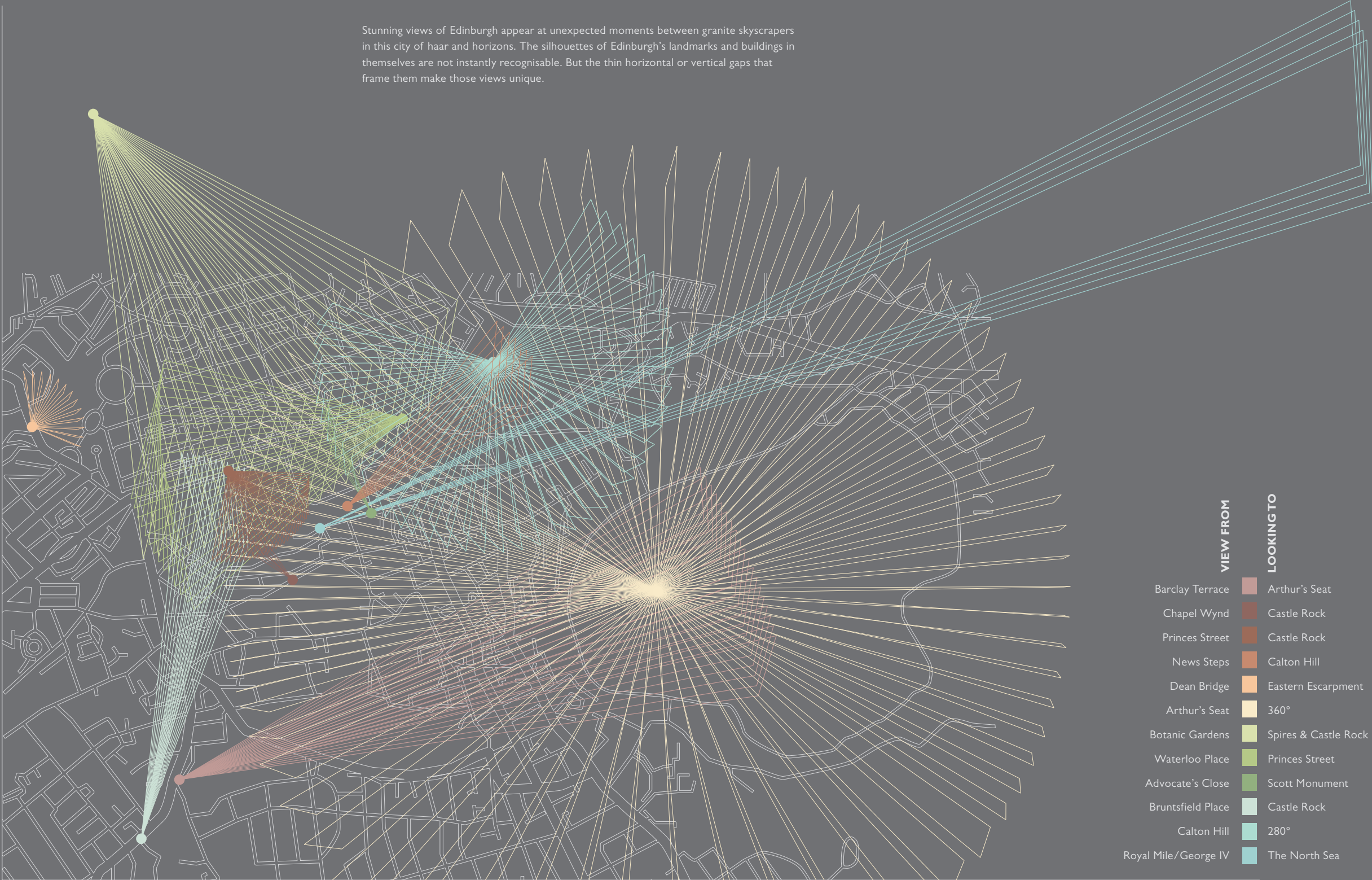
/hello!

Kate McLean | @katemclean | #smellmap #smellwalk

“Un-freezing the map”

EDINBURGH'S PANORAMAS

Stunning views of Edinburgh appear at unexpected moments between granite skyscrapers in this city of haar and horizons. The silhouettes of Edinburgh's landmarks and buildings in themselves are not instantly recognisable. But the thin horizontal or vertical gaps that frame them make those views unique.



/existing & preferred
states

/existing state: humankind is operating at 20%



‘We have at least **five senses**. By and large **we use only one**... missing out on 80% of the available information about the world... If we only perceive 20% of something, we’re unlikely to be able to relate appropriately to it.’

/potential future:
humans foreground alternative ways of knowing

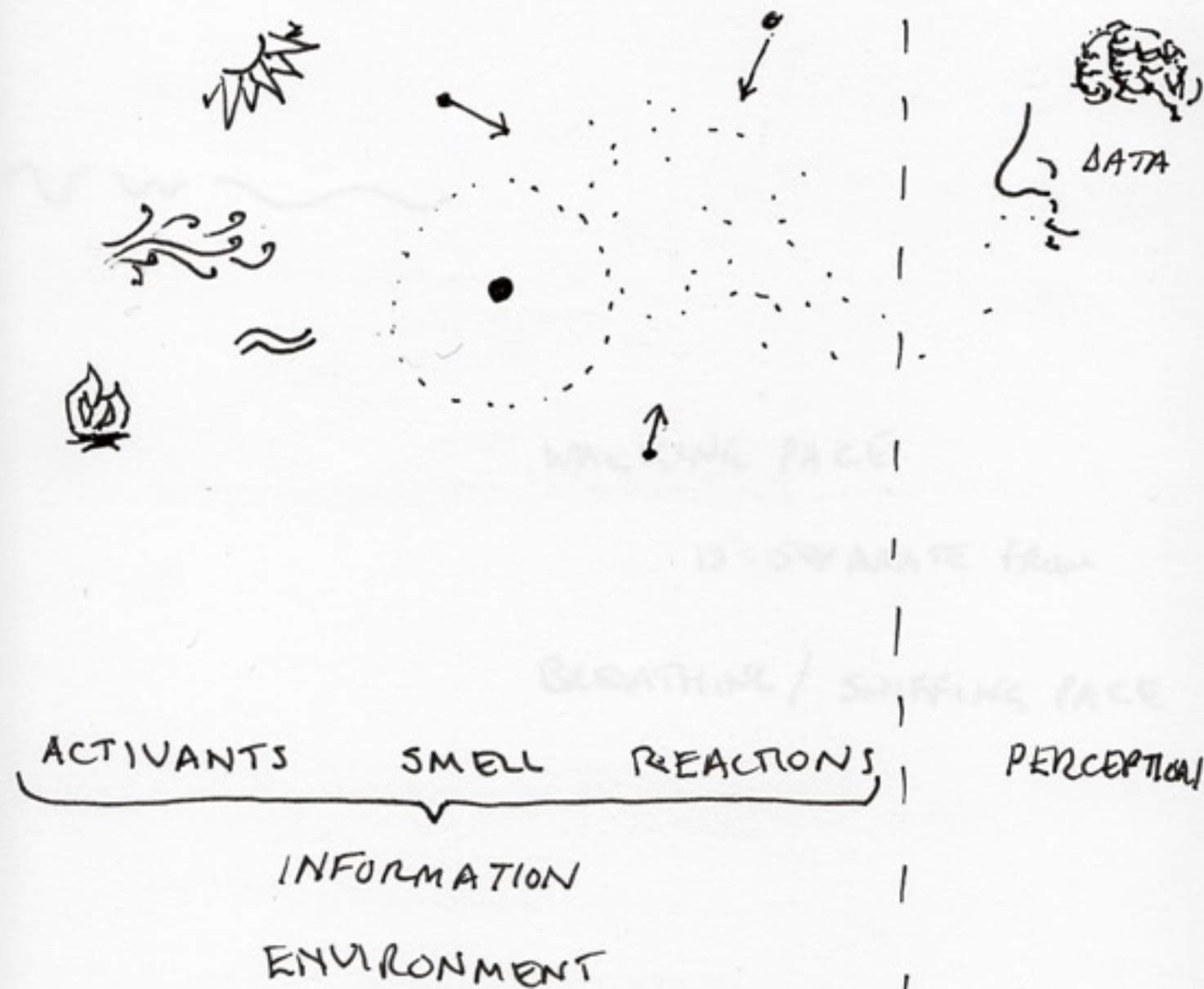


/connections: smell, body, place...

'When an intimacy occurs between "subject" and "object", it must surely be the world of smell and the places they reside.'*

/the
framework

/smellscape: as exterior to self & contextualised



/smellscape: spatial



the smellscape is the a term used to describe the odour landscape that surrounds us... "smells may be spatially ordered or place-related"* for a single person

"the smellscape is a spatial construct that exists for one person at a moment in time"**... therefore it has a limited temporal dimension?

/smellscape: temporal

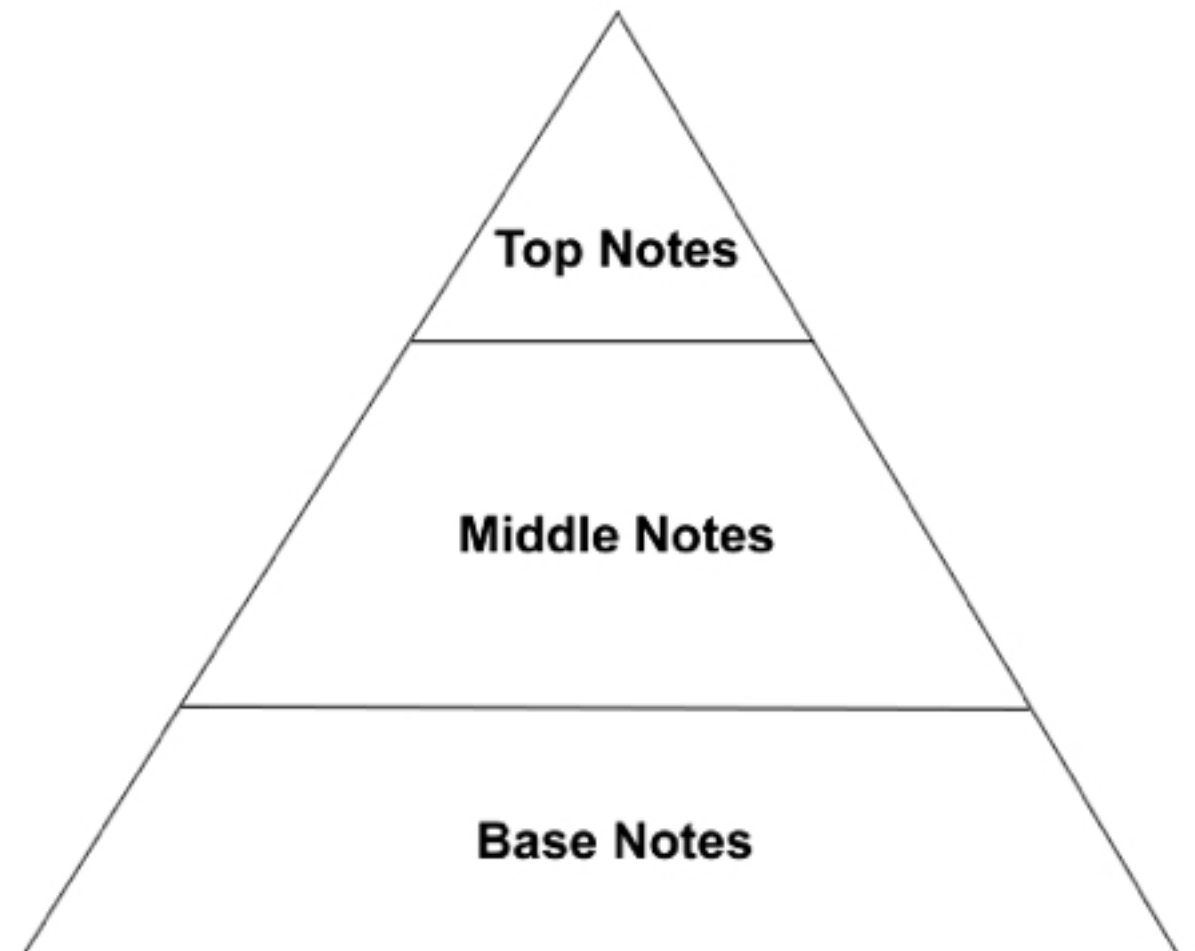
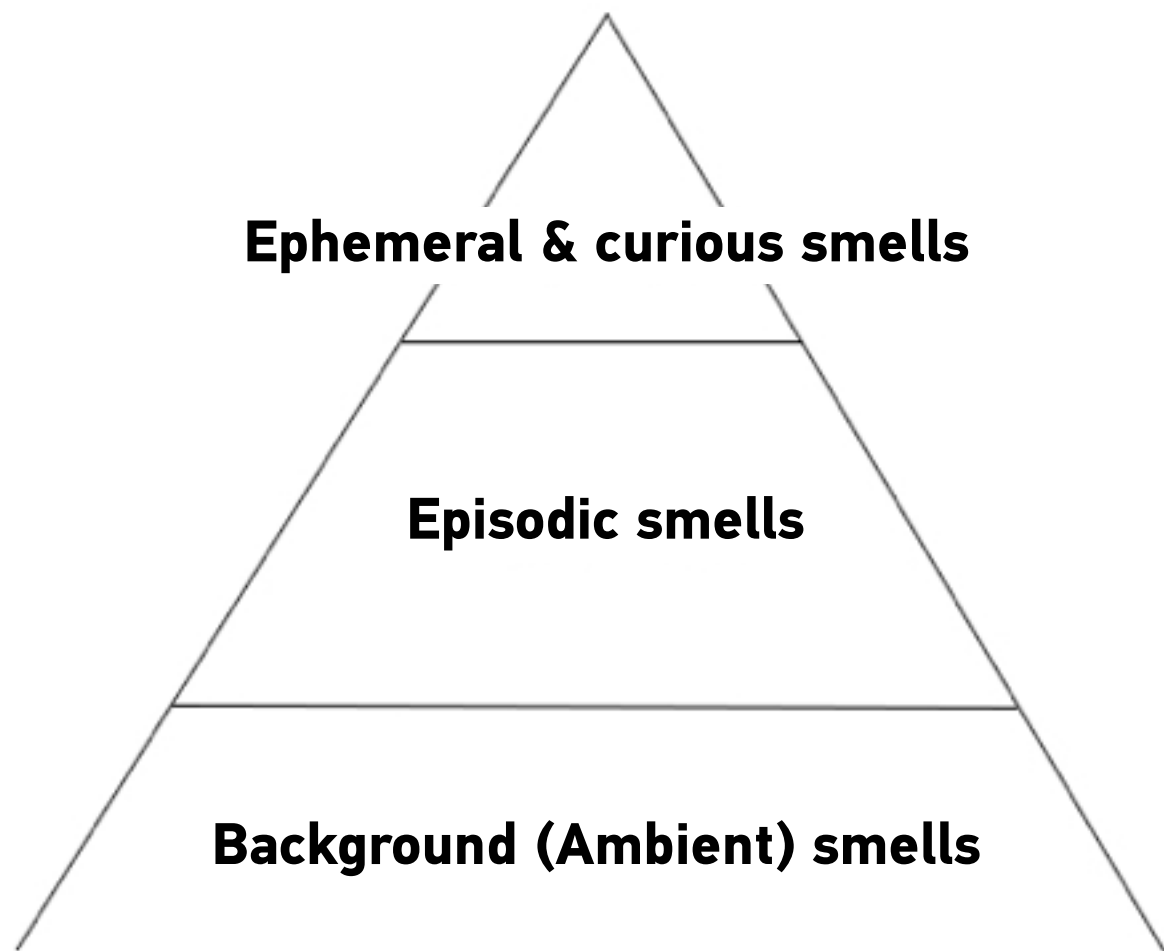


Smells are both airborne and embedded in surfaces, residing within the materiality of built structures and the natural world, as such the smellscape has both **static & dynamic qualities**



"Smells are whimsical creatures. As errant hitchhikers of rides on air currents they appear to defy being tied to a location yet our nuanced perception of olfactory knowledge is often linked with place." (McLean 2016 in LAF)

/smellscape: structure



/smellscape: olfactory infoset & smell voids

Years required to detect every smell:

$$1,000,000,000,000^* / 24,000^{**} =$$

41,666,667 days

$$41,666,667 / 365 =$$

114,155 years

except...

Breaths per hour:

$$24,000^{**} / 24 =$$

1000 bph

Seconds per breath:

$$(1000 / 60) / 60$$

= 3.5 seconds

/CDG 2010

Paris

McLean, K. (2012) 'Emotion, Location and the Senses: A Virtual Dérive Smell Map of Paris', in Brasset, J et al. (eds) Proceedings of the 8th International Design and Emotion Conference, London

McLean, K. (2014) 'Smell Map Narratives of Place—Paris' in Bissen, M and Vaughan, L (eds) New America Notes Online Issue 6 <http://www.nanocrit.com/issues/6-2014/smell-map-narratives-place-paris>

/you are not here...



/nuanced links to locations & emotions



Back of a
bus in 70's/80's

RSM

LOCATION: EPSOM
RAC COUNTRY CLUB HOTEL
19th HOTEL BAR
FIRST THING IN THE MORNING
WHEN IT HAD TO BE
CHANGED.

RSM

Ashtray
Grandparents house

RSM

The aquarium
cleaning tools
in my dad's
house. I was
6-9 years old.
I think of the aquarium
cleaning fish we had



Soap bubbles, I
enjoyed making
as big ones as I
possible!

LTA

une vieille
pomme tombée
du pommier

LTA

teachers' room RSM
at school.

Old smoke
Reminds me of
my grandma's
annex room

RSM

Dad smoking
Hamlet Cigars

↓
Home.

RSM

I don't know
how to say
in English but
it's like an old
apple:
pomme pourrie

LTA

mossy - pond in
southside Glasgow.
- happy
- nostalgia

LTA

mould
limescale

LTA

Old smoke
less than air
bar

RSM

STALE SMOKE!

SMELL ON MY
CLOTHES AFTER
A NITE OUT
BEFORE THE SMOKING
BAN.

RSM

Something
found in Grandma's
basement/attic;
old leather shoe/bag

RSM

Could be down
near the
canal.

LTA

canal boat ride
in France, smells
like the water/
algeae

LTA

Freshly washed
hospital floors
Cluj - Romania

LTA

HAVING TO
CLEAN OTHER
PEOPLE'S
ASH TRAYS

RSM

When I worked in a
restaurant before
the smoking ban
I hated cleaning
the ashtrays even
though I was a
smoker

ME IN THE
MORNING
WHEN I
SMOKED

RSM

from plants in
a greenhouse

LTA

Damp Stems
Ferns
Dorset

LTA

Bar

Ivan

Cigarettes,
reminiscent of
roll-up days,
pubs, parties
rhythm & blues,
100 club. London

RSM

Ashtrays,
before Mum
gave up 60 a day!

RSM

after a gig
and too
many
cigarettes

Tomatoes

crackling cement
parking lot in
Waukegan WI next to
fox river sanctuary.
the polluted river
smell would mix w/ the
gasoline: grass
smells of the lot.

LTA

An apartment I used
to live in, where
the electricity went
and everything
smelled like hair

LTA

/EDI 2011 Edinburgh

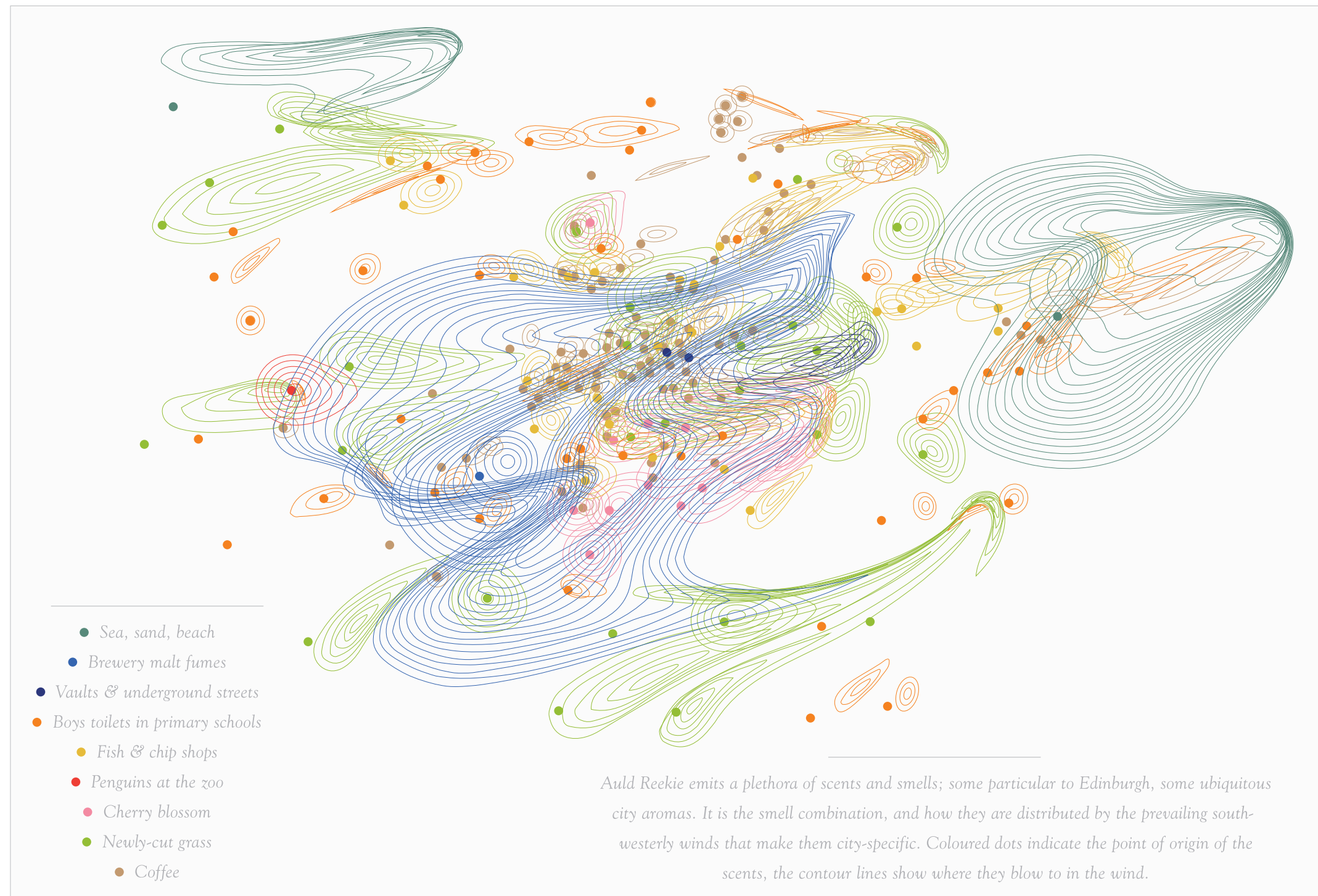
'You Are Here' / Group exhibition by invitation / National Library of Scotland / July 2016 – March 2017

Smellmap: Edinburgh / Sensory Worlds Conference, IASH, Edinburgh, UK 2011 / Dec 2011

Smellmap: Edinburgh / Edinburgh International Science Festival, John Hope Gateway, Botanic
Gardens, Edinburgh, UK / Mar – Jun 2011 (500 – 1500 vpd)

-
- *Sea, sand, beach*
 - *Brewery malt fumes*
 - *Vaults & underground streets*
 - *Boys toilets in primary schools*
 - *Fish & chip shops*
 - *Penguins at the zoo*
 - *Cherry blossom*
 - *Newly-cut grass*
 - *Coffee*

Smells of Auld Reekie on a very breezy day in 2011



/symbolisation





The wind, fresh
from the sea

Edinburgh is a place of scents and smells; some particular to Edinburgh, some ubiquitous. It is the small combination, and how they are distributed by the prevailing south-
west winds that make them city-specific. Coloured dots indicate the point of origin of the
scents, the contour lines show where they blow to in the wind.

© 2011 Kato McLean Design



/GLA 2012 Glasgow

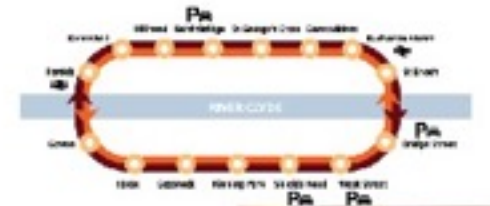
Smellmap: Glasgow / in Editors, P., Hessler, J., 2015. Map: Exploring The World, 01 edition. ed. Phaidon Press, London

McLean, K (2013) 'Smellmap: Glasgow', in Buchroithner, M et al. (ed) Proceedings of the 26th International Cartographic Conference, Dresden http://icaci.org/files/documents/ICC_proceedings/ICC2013/

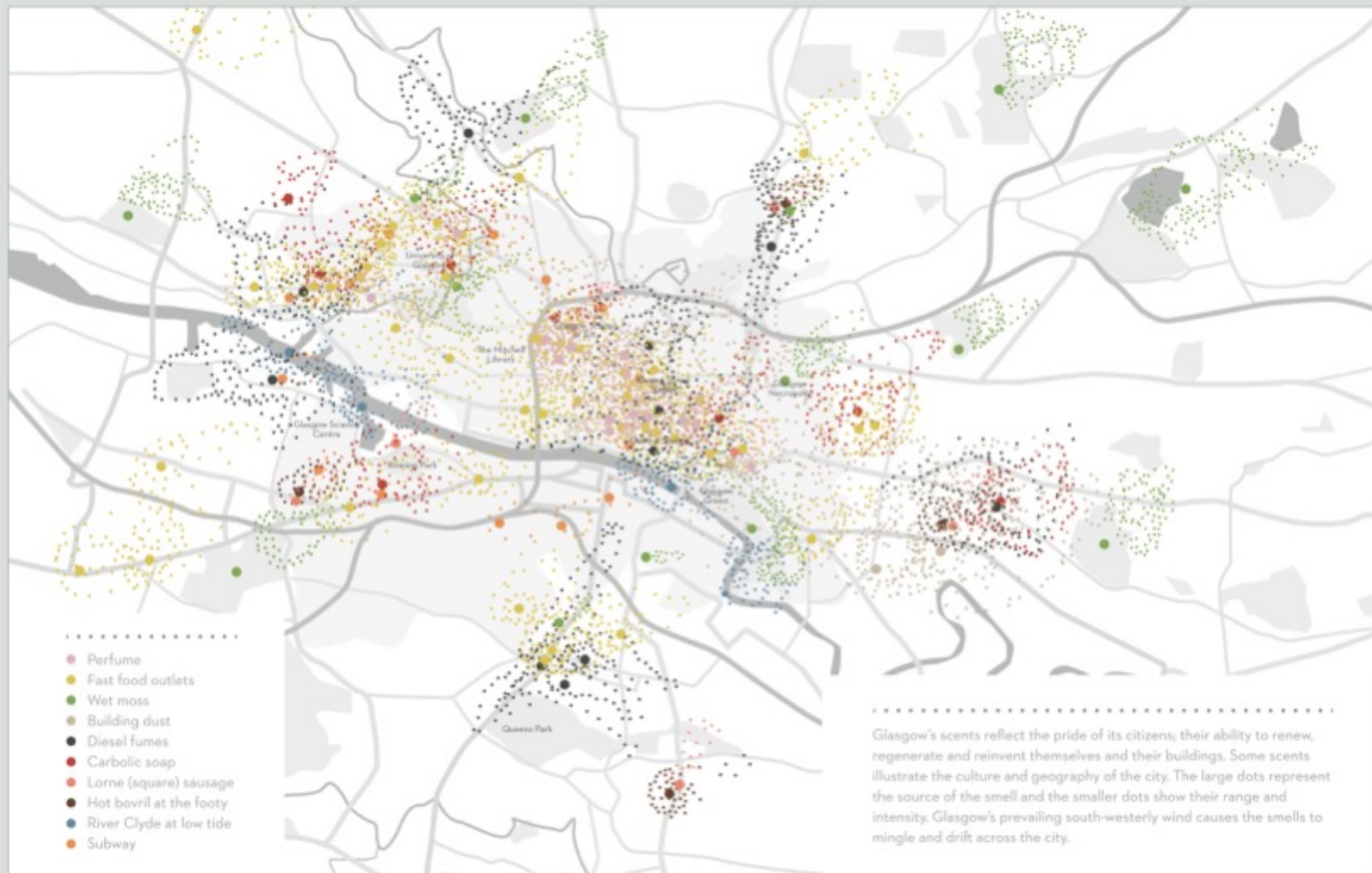
Smellmap: Glasgow / Sidney Cooper Gallery, Canterbury, UK / The Collected Group Show / April 2013

Smellmap: Glasgow /Glasgow Science Centre, UK / Sept 2012 (250 – 750 vpd)

/colour & smell



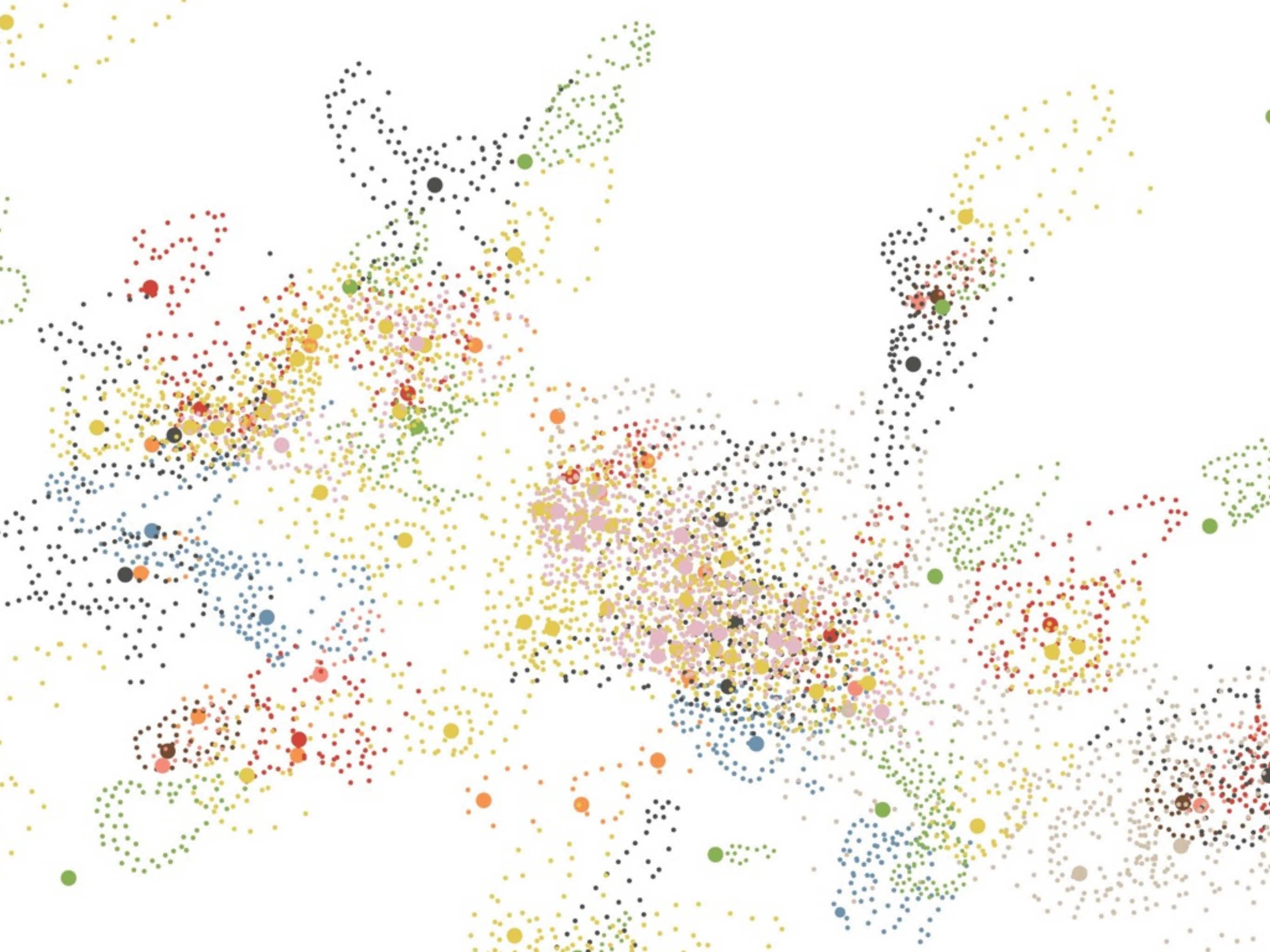
SCENTS OF GLASGOW 2012



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100



Glasgow's scents reflect the pride of the people of the city and their ability to renew, regenerate and reinvent themselves and their buildings. The large dots represent the source of the smell as the smaller dots show its range and intensity. Glasgow's prevailing south-westerly wind causes the scents to drift away to the north-east.





SCENTS OF GLASGOW 2012

Please add YOUR small stories

SMELL

A scent memory of the city

RECALL

What you have smelled in the past

WRITE

The words and feelings you associate with the scent

STICK

Your notes on the board under the scent



/NPT 2012

Newport, RI, USA

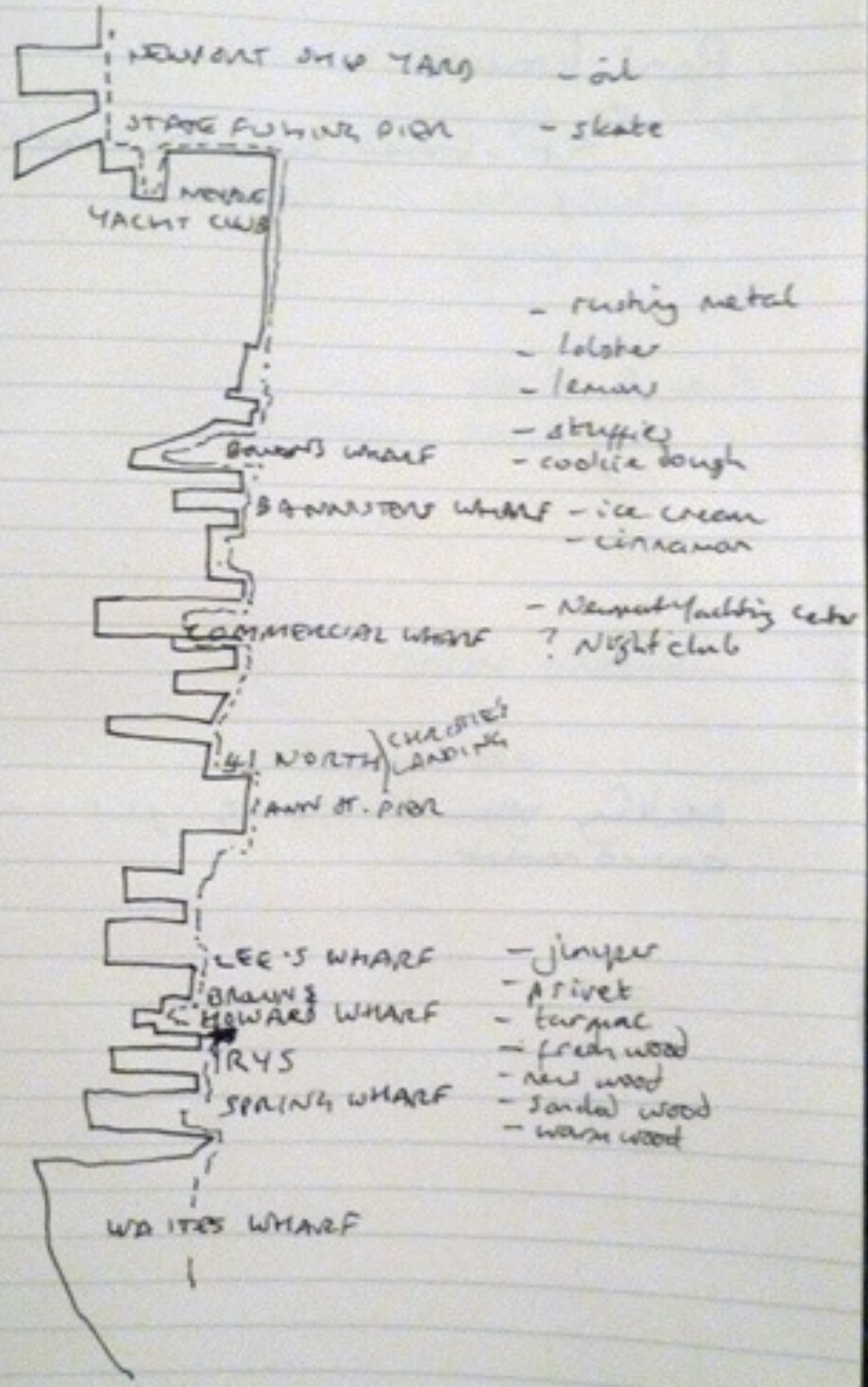
Smellmap: Newport / Nostalgias: Visualising Longing Conference, Pie Factory, Margate / Nov 2013

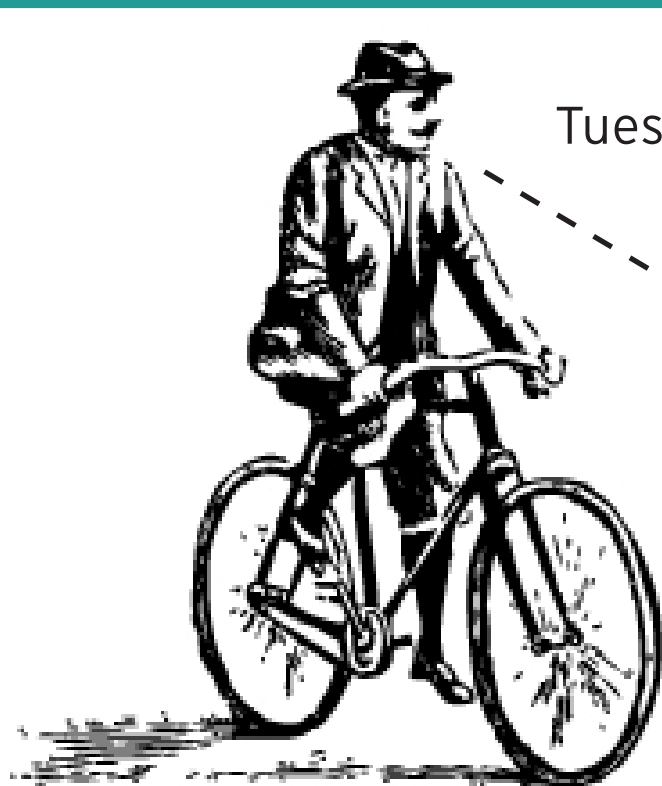
Smellmap Newport Installation with Scents / Newport Visitor Centre / August 2012

Smellmaps: Edinburgh, Glasgow, Newport / Illinois State University, Normal, IL, USA / Group Show / Sept 2013



HARBOR WHARF NEWPORT





Tuesday July 17, 2012 @ 10:30am

&



Catching the Whiff

A SMELL CYCLE RIDE WITH BRITISH SMELL MAPPER, KATE
McLEAN & NEWPORT CARTOGRAPHER MARY HUTCHINSON

*Duration 1.5 hours | Distance 10 miles | BYOBicycle | Meet at 10:30am at the Rogers
High School parking lot on Wickham Road, Newport | FREE | email any queries to
mcleankate@mac.com | Helmets mandatory!*





Rose - Batch #2

1

caps
small



1 = LOBSTER

4

5

SUNTAN

6 = BLUE ROSES

41°
25'

KEY TO SMELL AREAS

Limits and designations of smell origins are shown as colored dots. The range of the smell is shown with the circular isobar graphic, the smell movement on the prevailing 10 – 20 knot summer "smoky sou'wester" wind is shown with the displaced isobars.

- 4 THE OCEAN
- 2 BEACH ROSES
- 3 SUNTAN OIL
- 3 BEER BARS
- 2 JUNIPER BUSHES
- 3 FUDGE/COOKIES/ICE CREAM
- 2 BIRD'S NESTS/HAY
- 6 LOBSTER BAIT
- 3 FRESHLY CUT TIMBER

500 Feet

5,000

41° 20'

41° 20'

41° 20'

KEY TO SMELL AREAS

Limits and designations of smell origins are shown as colored dots. The range of the smell is shown with the circular isobar graphic, the smell movement on the prevailing 10 - 20 knot summer "moky sou'wester" wind is shown with the displaced isobars.

- THE OCEAN
- BEACH ROSES
- SUNTAN OIL
- BEER BARS



71° 30'

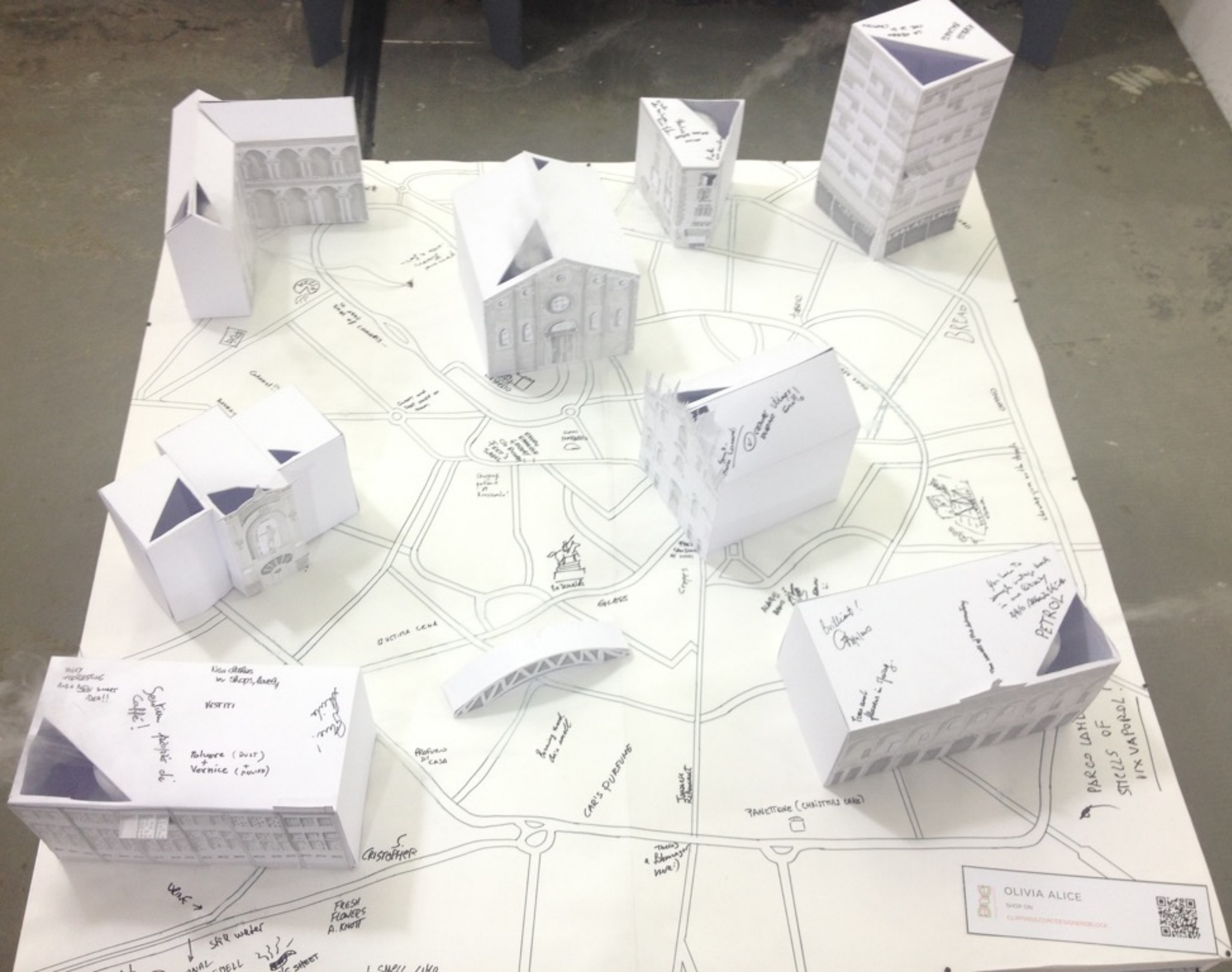
41° 20'

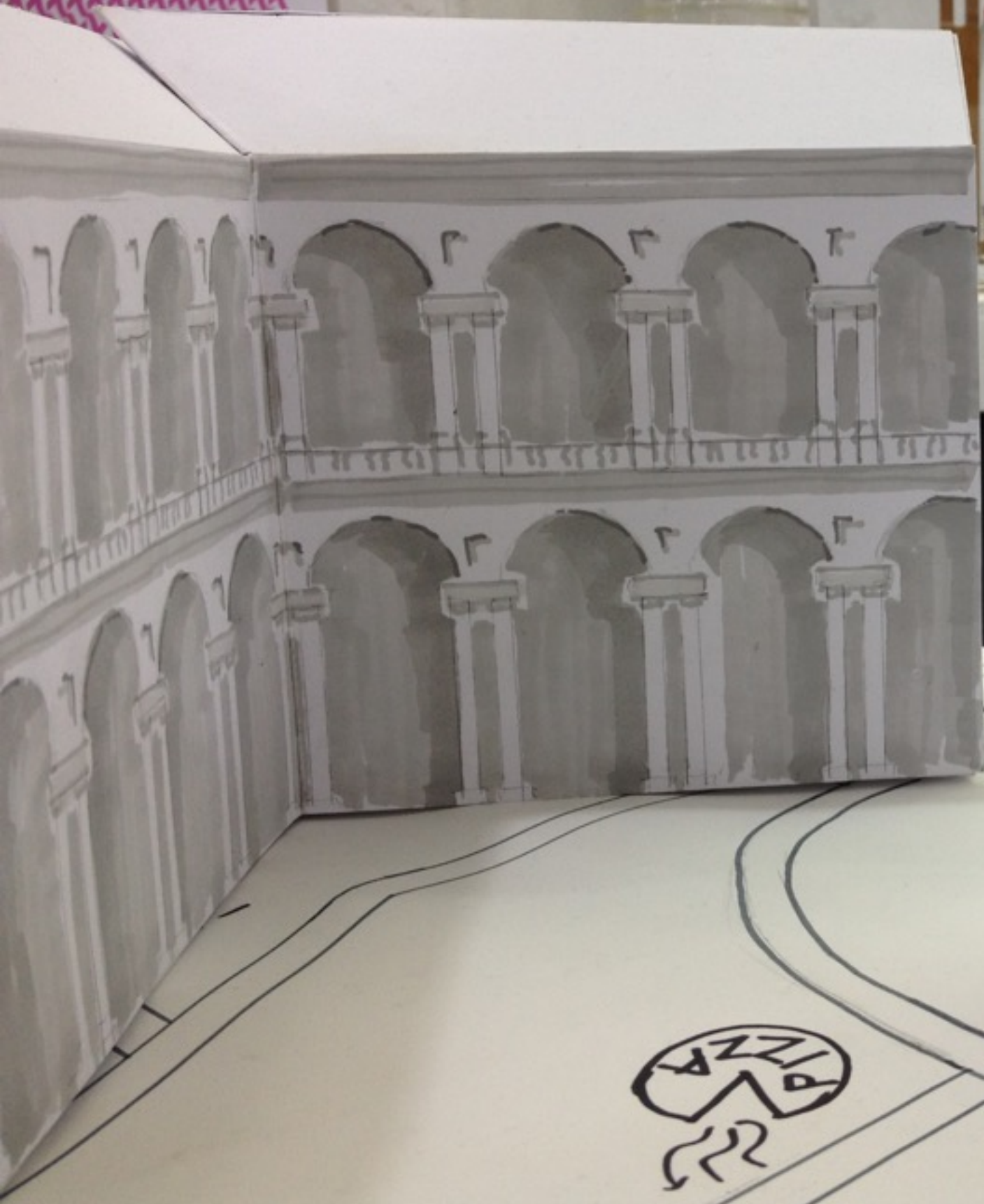
41° 30'

41° 30'

/MXP 2013

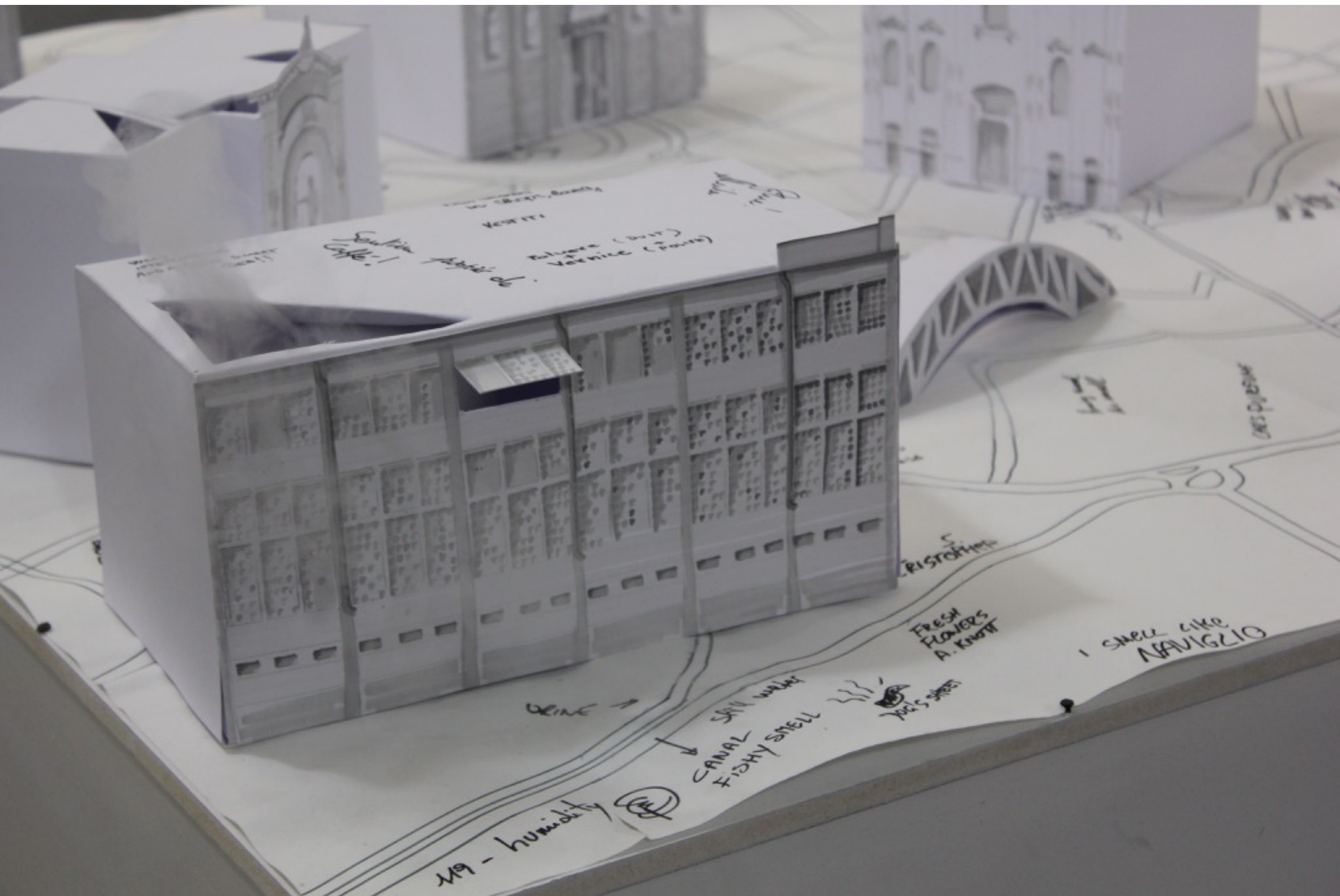
Milan





in 1990
small







WE CAN'T

use I think
of this I think of the
set of a new space of

VERY INTERESTING
AND A NEW SMART
IDEA!!

Section
Café!
Public in

New situation
in shops, locally
VESTITI

Polvere (DUST)
+ Vernice (PAINT)

Shit!

SHIT

LOVE

Car's PURFUMS

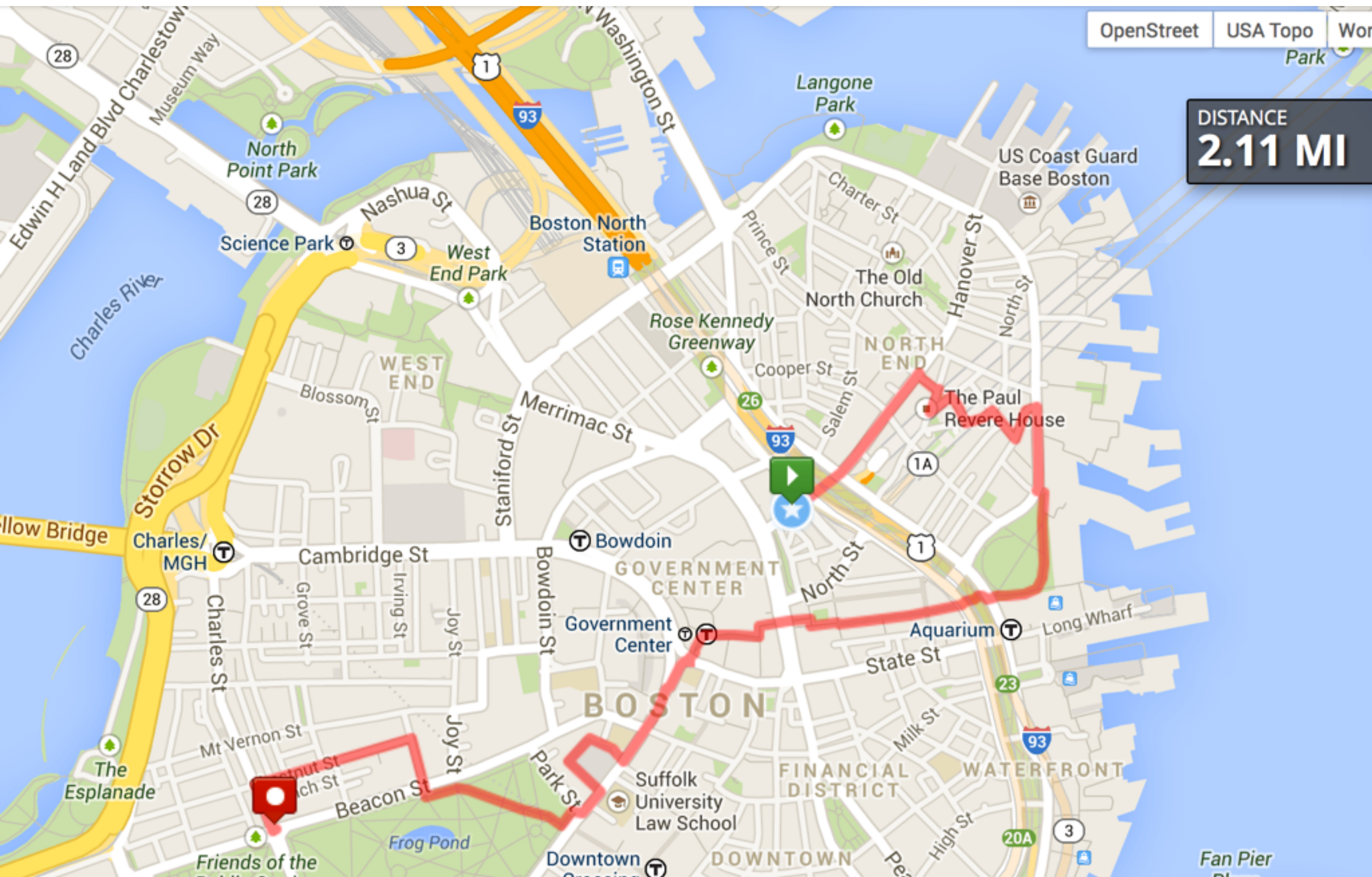
There's
a film-maker
here!!

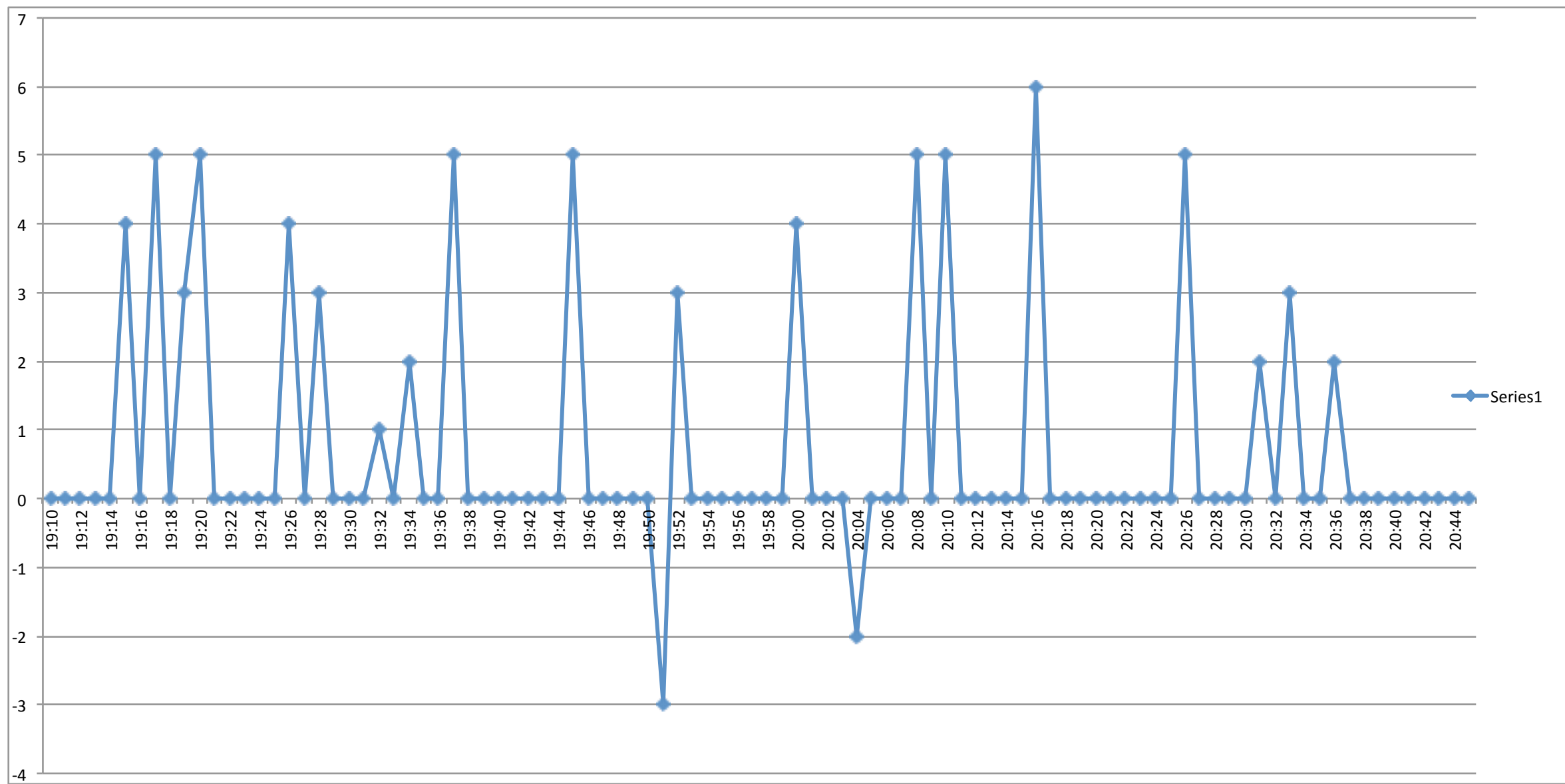
PAINTER (C)

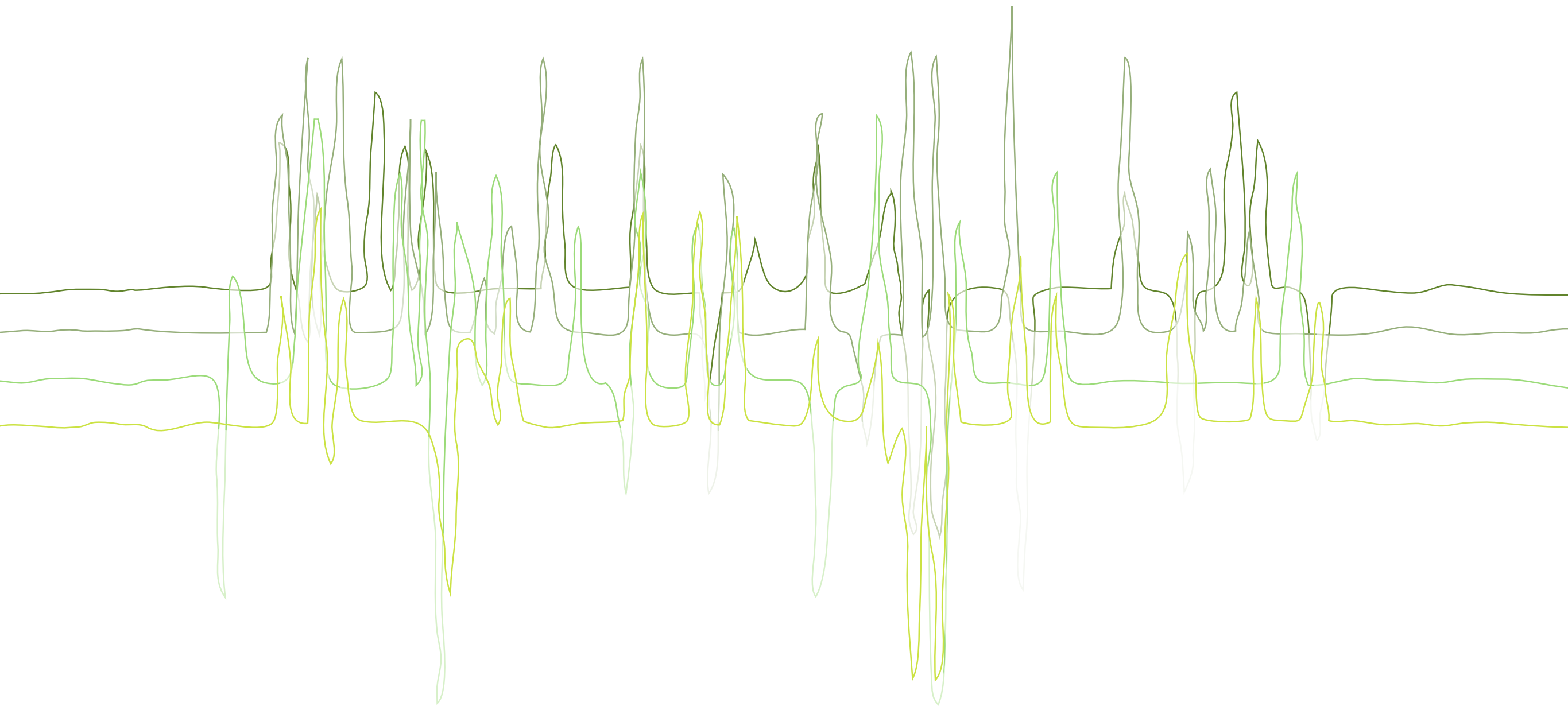


/BOS 2013

Boston







/AMS 2013 – 2014

Amsterdam

McLean, K (2014) 'Smellmap Amsterdam: Olfactory Art & Smell Visualisation', MIT Press Leonardo

Smellmap: Amsterdam / IEEE VIS 2014 VISAP / Paris / Nov 9 – 14, 2014

McLean, K. (2014) 'Moving C'Art: mediating the quixotic volatility of Amsterdam's spring smellscape',
Time Travellers – ESRC Charting the Digital, Jesus College, University of Oxford, UK

Smell Map

Amsterdam
SPRING 2013

Odour Intensity

0	1	2	3	4	5	6
no odor	very weak	weak	distinct	strong	v. strong	intolerable

Smell # (locate on map)	Description	Odour Intensity (0 - 6)	Expected smell? Y/N	How does it make you feel? Please describe any immediate memories or associations you have with this smell.	Smell rating (1 - 5) 1 = Dislike 5 = Like
1.	Fresh paint, solvent	3	N	Home improvement	2
2.	Entrance of T&A's shop. Leather	2	Y	Soft leather, new shoes, first day of school	4
3.	"Fierce" (Abercrombie & Fitch)	4	N	New York, 5th Ave, Entrance of the A&F flagship.	5
4.	Bakery	4	Y	Comforting, familiar smell	5
5.	different kinds of tulips	3	Y	orange tulips: spicy, saffron, curry-like red tulips: poor poor poor like: lavender garden	5
6.	Red tulips	4	Y	sweet rose, honey-like, cosmetic cream	5
7.	Dry grass, hay-like	3	Y	countryside, holidays, sun	5
8.	Fried/Rotten onions	5	N	garbage, waste disposal	1
9.					
10.					
11.					
12.					
13.					
14.					



“I could almost smell the sun.”
(McLean, 2013)

AMSTERDAM SMELLS

Waffles		Waffles in the market
Floral		Flower explosion
Wood/Construction		Woody/sweet/dry/paint/resinous
Greenery		Leafy fresh rain
Fish		Herring carts
Coffee		Coffee with friends
Spice combination		Warm spicy
Laundry		Laundry
Bookshops		Old book/attic/smokey/damp
Church		Wooden pews & musty hassocks
Other		Other
Canals		Canal
Chocolate factory		Chocolate powder

CURIA, & Stadthuys.

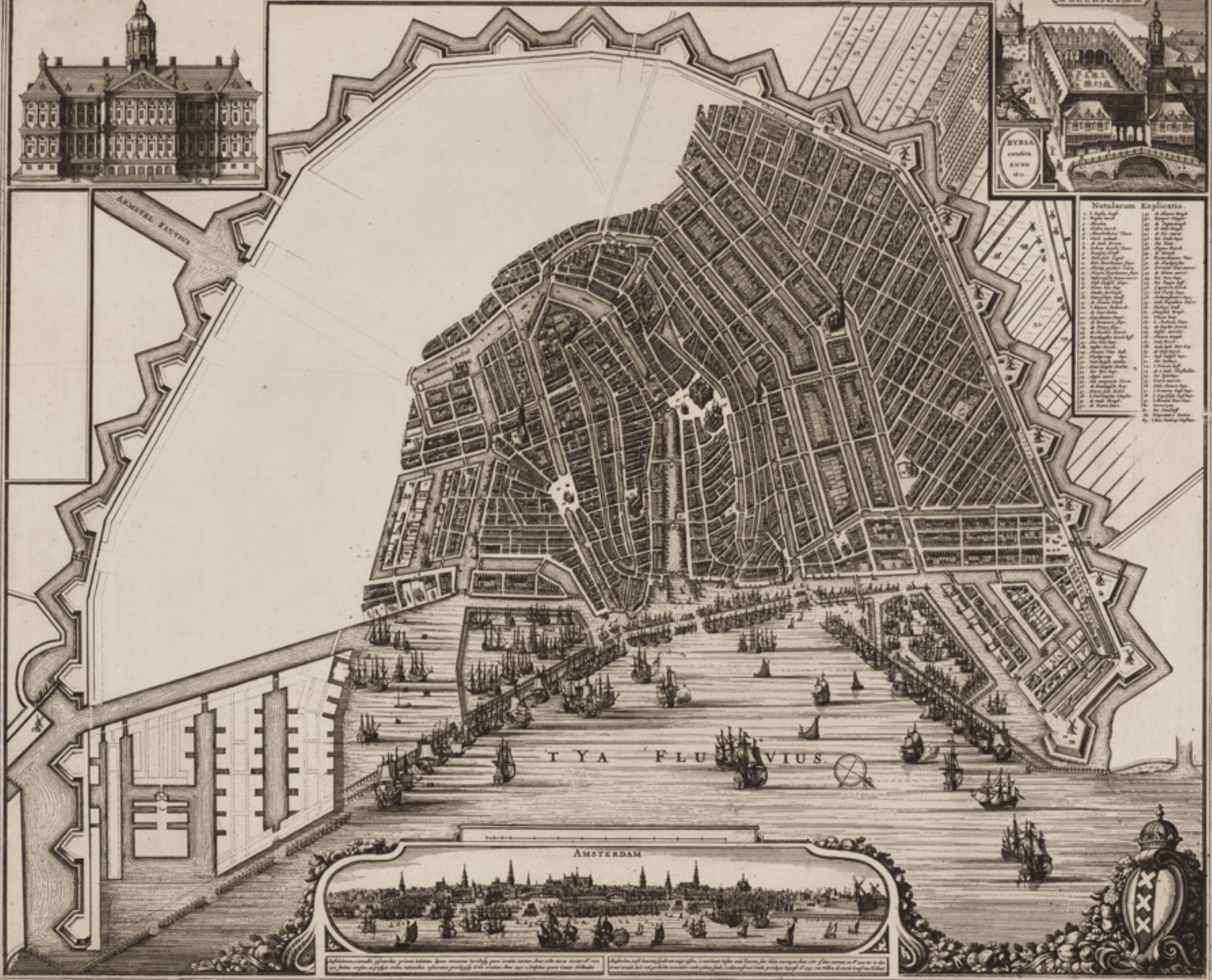
AMSTELODAMUM CELEBRE EMPORIUM FORMA PLANA.

de BEURSE

BYSSA
condita
ANNO
1673.

Notularum Explicatio.

- | | |
|-----------------|---------------------|
| 1. Regia Aegle | 25. de Altona Regia |
| 2. Regia Aegle | 26. Regia Aegle |
| 3. Regia Aegle | 27. Regia Aegle |
| 4. Regia Aegle | 28. Regia Aegle |
| 5. Regia Aegle | 29. Regia Aegle |
| 6. Regia Aegle | 30. Regia Aegle |
| 7. Regia Aegle | 31. Regia Aegle |
| 8. Regia Aegle | 32. Regia Aegle |
| 9. Regia Aegle | 33. Regia Aegle |
| 10. Regia Aegle | 34. Regia Aegle |
| 11. Regia Aegle | 35. Regia Aegle |
| 12. Regia Aegle | 36. Regia Aegle |
| 13. Regia Aegle | 37. Regia Aegle |
| 14. Regia Aegle | 38. Regia Aegle |
| 15. Regia Aegle | 39. Regia Aegle |
| 16. Regia Aegle | 40. Regia Aegle |
| 17. Regia Aegle | 41. Regia Aegle |
| 18. Regia Aegle | 42. Regia Aegle |
| 19. Regia Aegle | 43. Regia Aegle |
| 20. Regia Aegle | 44. Regia Aegle |
| 21. Regia Aegle | 45. Regia Aegle |
| 22. Regia Aegle | 46. Regia Aegle |
| 23. Regia Aegle | 47. Regia Aegle |
| 24. Regia Aegle | 48. Regia Aegle |
| 25. Regia Aegle | 49. Regia Aegle |
| 26. Regia Aegle | 50. Regia Aegle |
| 27. Regia Aegle | 51. Regia Aegle |
| 28. Regia Aegle | 52. Regia Aegle |
| 29. Regia Aegle | 53. Regia Aegle |
| 30. Regia Aegle | 54. Regia Aegle |
| 31. Regia Aegle | 55. Regia Aegle |
| 32. Regia Aegle | 56. Regia Aegle |
| 33. Regia Aegle | 57. Regia Aegle |
| 34. Regia Aegle | 58. Regia Aegle |
| 35. Regia Aegle | 59. Regia Aegle |
| 36. Regia Aegle | 60. Regia Aegle |
| 37. Regia Aegle | 61. Regia Aegle |
| 38. Regia Aegle | 62. Regia Aegle |
| 39. Regia Aegle | 63. Regia Aegle |
| 40. Regia Aegle | 64. Regia Aegle |
| 41. Regia Aegle | 65. Regia Aegle |
| 42. Regia Aegle | 66. Regia Aegle |
| 43. Regia Aegle | 67. Regia Aegle |
| 44. Regia Aegle | 68. Regia Aegle |
| 45. Regia Aegle | 69. Regia Aegle |
| 46. Regia Aegle | 70. Regia Aegle |
| 47. Regia Aegle | 71. Regia Aegle |
| 48. Regia Aegle | 72. Regia Aegle |
| 49. Regia Aegle | 73. Regia Aegle |
| 50. Regia Aegle | 74. Regia Aegle |
| 51. Regia Aegle | 75. Regia Aegle |
| 52. Regia Aegle | 76. Regia Aegle |
| 53. Regia Aegle | 77. Regia Aegle |
| 54. Regia Aegle | 78. Regia Aegle |
| 55. Regia Aegle | 79. Regia Aegle |
| 56. Regia Aegle | 80. Regia Aegle |
| 57. Regia Aegle | 81. Regia Aegle |
| 58. Regia Aegle | 82. Regia Aegle |
| 59. Regia Aegle | 83. Regia Aegle |
| 60. Regia Aegle | 84. Regia Aegle |
| 61. Regia Aegle | 85. Regia Aegle |
| 62. Regia Aegle | 86. Regia Aegle |
| 63. Regia Aegle | 87. Regia Aegle |
| 64. Regia Aegle | 88. Regia Aegle |
| 65. Regia Aegle | 89. Regia Aegle |
| 66. Regia Aegle | 90. Regia Aegle |
| 67. Regia Aegle | 91. Regia Aegle |
| 68. Regia Aegle | 92. Regia Aegle |
| 69. Regia Aegle | 93. Regia Aegle |
| 70. Regia Aegle | 94. Regia Aegle |
| 71. Regia Aegle | 95. Regia Aegle |
| 72. Regia Aegle | 96. Regia Aegle |
| 73. Regia Aegle | 97. Regia Aegle |
| 74. Regia Aegle | 98. Regia Aegle |
| 75. Regia Aegle | 99. Regia Aegle |
| 76. Regia Aegle | 100. Regia Aegle |



FLOWER EXPLOSION

SMELL INTENSITY

Smell intensity is the perceived strength of odour sensation – we often use intensity to locate the sources of odours. The intensity was indicated by Amsterdam as they recorded their smell perceptions of the city in April 2015 using a scale that ranges from 0 (no detection odour) to 6 (intolerable). In Amsterdam only one smell rated as a 6, while, whereas churches and urban eggs and food were all given the lowest rating of 1.

1. Amsterdam & City	4	10. Church	1
2. Amsterdam	4	11. Church (St. Nicholas, Nieuw, etc.)	1
3. Amsterdam	4	12. Church (St. Nicholas, Nieuw, etc.)	1
4. Amsterdam	4	13. Church (St. Nicholas, Nieuw, etc.)	1
5. Amsterdam	4	14. Church (St. Nicholas, Nieuw, etc.)	1
6. Amsterdam	4	15. Church (St. Nicholas, Nieuw, etc.)	1
7. Amsterdam	4	16. Church (St. Nicholas, Nieuw, etc.)	1
8. Amsterdam	4	17. Church (St. Nicholas, Nieuw, etc.)	1
9. Amsterdam	4	18. Church (St. Nicholas, Nieuw, etc.)	1
10. Amsterdam	4	19. Church (St. Nicholas, Nieuw, etc.)	1
11. Amsterdam	4	20. Church (St. Nicholas, Nieuw, etc.)	1
12. Amsterdam	4	21. Church (St. Nicholas, Nieuw, etc.)	1
13. Amsterdam	4	22. Church (St. Nicholas, Nieuw, etc.)	1
14. Amsterdam	4	23. Church (St. Nicholas, Nieuw, etc.)	1
15. Amsterdam	4	24. Church (St. Nicholas, Nieuw, etc.)	1
16. Amsterdam	4	25. Church (St. Nicholas, Nieuw, etc.)	1
17. Amsterdam	4	26. Church (St. Nicholas, Nieuw, etc.)	1
18. Amsterdam	4	27. Church (St. Nicholas, Nieuw, etc.)	1
19. Amsterdam	4	28. Church (St. Nicholas, Nieuw, etc.)	1
20. Amsterdam	4	29. Church (St. Nicholas, Nieuw, etc.)	1
21. Amsterdam	4	30. Church (St. Nicholas, Nieuw, etc.)	1
22. Amsterdam	4	31. Church (St. Nicholas, Nieuw, etc.)	1
23. Amsterdam	4	32. Church (St. Nicholas, Nieuw, etc.)	1
24. Amsterdam	4	33. Church (St. Nicholas, Nieuw, etc.)	1
25. Amsterdam	4	34. Church (St. Nicholas, Nieuw, etc.)	1
26. Amsterdam	4	35. Church (St. Nicholas, Nieuw, etc.)	1
27. Amsterdam	4	36. Church (St. Nicholas, Nieuw, etc.)	1
28. Amsterdam	4	37. Church (St. Nicholas, Nieuw, etc.)	1
29. Amsterdam	4	38. Church (St. Nicholas, Nieuw, etc.)	1
30. Amsterdam	4	39. Church (St. Nicholas, Nieuw, etc.)	1
31. Amsterdam	4	40. Church (St. Nicholas, Nieuw, etc.)	1
32. Amsterdam	4	41. Church (St. Nicholas, Nieuw, etc.)	1
33. Amsterdam	4	42. Church (St. Nicholas, Nieuw, etc.)	1
34. Amsterdam	4	43. Church (St. Nicholas, Nieuw, etc.)	1
35. Amsterdam	4	44. Church (St. Nicholas, Nieuw, etc.)	1
36. Amsterdam	4	45. Church (St. Nicholas, Nieuw, etc.)	1
37. Amsterdam	4	46. Church (St. Nicholas, Nieuw, etc.)	1
38. Amsterdam	4	47. Church (St. Nicholas, Nieuw, etc.)	1
39. Amsterdam	4	48. Church (St. Nicholas, Nieuw, etc.)	1
40. Amsterdam	4	49. Church (St. Nicholas, Nieuw, etc.)	1
41. Amsterdam	4	50. Church (St. Nicholas, Nieuw, etc.)	1
42. Amsterdam	4	51. Church (St. Nicholas, Nieuw, etc.)	1
43. Amsterdam	4	52. Church (St. Nicholas, Nieuw, etc.)	1
44. Amsterdam	4	53. Church (St. Nicholas, Nieuw, etc.)	1
45. Amsterdam	4	54. Church (St. Nicholas, Nieuw, etc.)	1
46. Amsterdam	4	55. Church (St. Nicholas, Nieuw, etc.)	1
47. Amsterdam	4	56. Church (St. Nicholas, Nieuw, etc.)	1
48. Amsterdam	4	57. Church (St. Nicholas, Nieuw, etc.)	1
49. Amsterdam	4	58. Church (St. Nicholas, Nieuw, etc.)	1
50. Amsterdam	4	59. Church (St. Nicholas, Nieuw, etc.)	1
51. Amsterdam	4	60. Church (St. Nicholas, Nieuw, etc.)	1
52. Amsterdam	4	61. Church (St. Nicholas, Nieuw, etc.)	1
53. Amsterdam	4	62. Church (St. Nicholas, Nieuw, etc.)	1
54. Amsterdam	4	63. Church (St. Nicholas, Nieuw, etc.)	1
55. Amsterdam	4	64. Church (St. Nicholas, Nieuw, etc.)	1
56. Amsterdam	4	65. Church (St. Nicholas, Nieuw, etc.)	1
57. Amsterdam	4	66. Church (St. Nicholas, Nieuw, etc.)	1
58. Amsterdam	4	67. Church (St. Nicholas, Nieuw, etc.)	1
59. Amsterdam	4	68. Church (St. Nicholas, Nieuw, etc.)	1
60. Amsterdam	4	69. Church (St. Nicholas, Nieuw, etc.)	1
61. Amsterdam	4	70. Church (St. Nicholas, Nieuw, etc.)	1
62. Amsterdam	4	71. Church (St. Nicholas, Nieuw, etc.)	1
63. Amsterdam	4	72. Church (St. Nicholas, Nieuw, etc.)	1
64. Amsterdam	4	73. Church (St. Nicholas, Nieuw, etc.)	1
65. Amsterdam	4	74. Church (St. Nicholas, Nieuw, etc.)	1
66. Amsterdam	4	75. Church (St. Nicholas, Nieuw, etc.)	1
67. Amsterdam	4	76. Church (St. Nicholas, Nieuw, etc.)	1
68. Amsterdam	4	77. Church (St. Nicholas, Nieuw, etc.)	1
69. Amsterdam	4	78. Church (St. Nicholas, Nieuw, etc.)	1
70. Amsterdam	4	79. Church (St. Nicholas, Nieuw, etc.)	1
71. Amsterdam	4	80. Church (St. Nicholas, Nieuw, etc.)	1
72. Amsterdam	4	81. Church (St. Nicholas, Nieuw, etc.)	1
73. Amsterdam	4	82. Church (St. Nicholas, Nieuw, etc.)	1
74. Amsterdam	4	83. Church (St. Nicholas, Nieuw, etc.)	1
75. Amsterdam	4	84. Church (St. Nicholas, Nieuw, etc.)	1
76. Amsterdam	4	85. Church (St. Nicholas, Nieuw, etc.)	1
77. Amsterdam	4	86. Church (St. Nicholas, Nieuw, etc.)	1
78. Amsterdam	4	87. Church (St. Nicholas, Nieuw, etc.)	1
79. Amsterdam	4	88. Church (St. Nicholas, Nieuw, etc.)	1
80. Amsterdam	4	89. Church (St. Nicholas, Nieuw, etc.)	1
81. Amsterdam	4	90. Church (St. Nicholas, Nieuw, etc.)	1
82. Amsterdam	4	91. Church (St. Nicholas, Nieuw, etc.)	1
83. Amsterdam	4	92. Church (St. Nicholas, Nieuw, etc.)	1
84. Amsterdam	4	93. Church (St. Nicholas, Nieuw, etc.)	1
85. Amsterdam	4	94. Church (St. Nicholas, Nieuw, etc.)	1
86. Amsterdam	4	95. Church (St. Nicholas, Nieuw, etc.)	1
87. Amsterdam	4	96. Church (St. Nicholas, Nieuw, etc.)	1
88. Amsterdam	4	97. Church (St. Nicholas, Nieuw, etc.)	1
89. Amsterdam	4	98. Church (St. Nicholas, Nieuw, etc.)	1
90. Amsterdam	4	99. Church (St. Nicholas, Nieuw, etc.)	1
91. Amsterdam	4	100. Church (St. Nicholas, Nieuw, etc.)	1

SMELL LEGEND

- Waffles in the market
- Flower explosion
- Windy, sweet, dry, paint, industrial
- Daily fresh air
- Washing carts & wet fish
- Coffee with friends
- Warm spring
- Cooking
- Old books, coffee, smoking, sleep
- Cool
- Chocolate powder

Over 600 smells were detected by 10 people undertaking 10 different smellwalks over a period of a business day in April 2015. The smells grouped into 10 different types. People expect Amsterdam to smell primarily of canals. Canals are a strong smell, equal to seaports, cleaning products, buses and the distinct 'surge' in perceived intensity. But it did not feature in more than a couple of neighbourhoods and several microclimates. The most common smells that came through were of aromatic spices from Indian and Vietnamese shops and restaurants, waffles from the street vendors and waffle shops, old books, and pickled herring from the herring stalls.

SPRING SCENTS & SMELLS OF THE CITY OF AMSTERDAM

Spring in Amsterdam – an abundance of floral scents and the warm, sugary, powdery sweetness of waffles, North- and South-western spring winds in the city generate sprays of episodic scents against an ambient background aroma of the canals and fields of chocolate powder. Dots mark the origins of the smells, concentric circles illustrate the range of the smells as drifting contours denote smell movement.

SPRING SCENTS & SMELLS OF THE CITY OF AMSTERDAM

Created in collaboration with International Flowers & Fragrances, Museum
With special thanks to: Bernadette Fleming, Rens van't Hof and the Effective Design Studio, Dorine Michael, Rita Bely, Alwin Molter, Chris Perkins
Funding: Knowledge Exchange at Canterbury Christ Church University
Design © 2016 Kate Wilson All rights reserved



MAPAMUNDISTAS

las consecuencias del mapa
2014



Las consecuencias del mapa

Benoît Broisat
Amaia Gracia Azqueta
Mateo Mate
Kate McLean
Eriz Moreno Aranguren

Y... un ciclo de video arte, encuentros con artistas y talleres.

www.mapamundistas.com

10 oct. - 9 nov. 2014



Location	Smell
1. Outside, near	1
2. Inside	2
3. Outside, near	3
4. Inside	4
5. Outside, near	5
6. Inside	6
7. Outside, near	7
8. Inside	8
9. Outside, near	9
10. Inside	10
11. Outside, near	11
12. Inside	12
13. Outside, near	13
14. Inside	14
15. Outside, near	15
16. Inside	16



Smell #	Description	Other	Expected	How does it
Smell #	Description	Intensity	Smell	in Amsterdam
1	Bleeding	0-5	1%	
2	Red			
3	Flower			
4	Iron			
5	Laundry			
6	Ford			
7	Extruded cigarette			
8	Concrete			
9	Cleanliness of clothes			
10	Carpenter / paint			
11	Industrial waste / car?			
12	Smell of soap			
13	Cologne / perfume			
14	Flower / fruit			

Smell #	Description	Other	Expected	How does it
Smell #	Description	Intensity	Smell	in Amsterdam
15	Ward / storage			
16	Soil / ground			
17	Soft, tender, complete kitchen			
18	Kitchen / kitchen			
19	Potatoes			
20	Incense			
21	Car / restaurant			
22	Kitchen			
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				
36				
37				
38				
39				
40				
41				
42				

= WEED
 = BEER
 = TAMPONS (very)
 = SOAP
 = CLOTHES









/LPL 2014

Ellesmere Port

“follow your nose” / Cheshire West & Chester, Arts Council, Lottery Funded /
Scent walking & Mapping / Ellesmere Port / July 25 & 26 2014

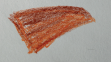





THE MOST POLLUTED CITY!
CARBON BLACK OLD
OCTOBER OLD!
ROBINSON TURNED
WHITE FROM
DUST FROM VIK
ALL BEEN CLEANED
NOW
OVER THE SIDE OF
THE MOTORWAY NOW

Gas from Shell plant!
Blue!!
Cloud Shaped!!


Sulphur
Oily
Poopy - sewage
works
AS117
Not good smell

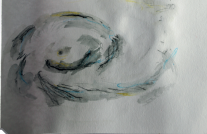
Metabolic background
in Ellesmere Port
- fire a piece
of copper


As soon as I
drive past Ellesmere
I can smell
taste the chemicals



OUT OF TOWN

Circle-shaped Easing
you could get out of
it
Small - potatoes
Colour - grey or foggy
2000

COMING BK INTO PORT VIA 'SHELL'
YOU HIT A 'SHELL BARRIER' FROM
THE EFFICIENT WORKERS.
Like a DIRTY CURTAIN!


DISTINCTIVE
INDUSTRIAL
SMELL - "even with
your eyes closed you can
smell that industrial
odour - it pervades
everything - You know
you are home!"



ELLESMERE PORT'S SCENTSCAPE

Lowender 2x Flat Low
blue colour
cylindrical shape



Fern
- bitter saline /
cucumber
flavour / like veg
which - make soup
(Couscous) - salty /
pale green /
bluish-grey
- off cut - serrated
edge

Couscous - former
Couscous
Waxiness

Leaves / forest
Aromatic smell
- Dearest brown
leaf


Fern
Brown (light)
Pointy



Tender plant smells
smell of organic
Pollen
Resin
Cinnamon / Marzipan


Cow peat
Fungus
Brown (dark)
Rectangle


Fresh phosporic
dusts like fog
& yellow
Smells like autumn
Fog - cucumber


Smell - smells of
something
Potassium / dry fog
Smells just
after rain


The smell of Celandine
drifts through the air
regularly in Ellesmere
Port. It hangs in the air
Slightly sweet, but reminds
me of a strong
- strong - mix of iron,
Woody & burning. It reminds
me of Smeag


Came into the shop
smell of camping - plastic
rubbery smell
whole green smell



Description of Smell:
Brent Passes
colours of smell
Red
Brown
Orange
Is Whiffy Road.
Long and
Round



HUMAN B.O. CLOTHING
CLOTHES


CHINESE - CHIP DIPS
Small / yellow - CHINESE
SLURRY FLOW
CAIRO - BERRIT


Low Cattle
Wood - spherical + pale yellow
Apple - cool - silver
Mouldy - Green
Wax - foam - flat
Rubber - light green
- small plastic
Shuttle - CNC machine
(Plastic)
Snowflakes


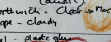
TYRES & CARDS
Large
Synthetic
Cylinders
Thick symmetrical


FRESH BAKED BREAD
BROWN - LIGHT
TRINITY METHODIST CHURCH.
BUN-SHAPED


BACON
BURNED EGG
BODY ODOUR.
Dark Brown
SHEET SCENT



Smells mostly
at the scales!

WHITBY ROAD



3D Printer - thin, ABS
(mint) plastic
White / Cotton
Dissolving bands / (aluminum)
Candies
Nuts with - Clob in Port
Shape - clumpy
Vint - plastic glass
Unsettling
Smell like rubber - broken
material, various
Electronics - Soldering
Solder



Smell of Making Orange
Juice.
Lemon Orange.
Mist.



HOMERAGE
THOUGHT LIKE
YOU MIX THEM
TOGETHER
CHEESE & FRUIT
YOGHURT


Nasty
grey.


THERE'S
GOOD COFFEE
NOW

as can smell the
leather - colour black
light smell


and / postures
orange
heavy
oblong


1 distinctive
orange
Scent
maybe the air we
breathe - constant
fresh, orange - too
hot for cheese over the
yellow


Smells of new carpets
Smells of goodness
light like
Chestnut



Cher.
Faded
Light
up
rectangle



THE MAIN SMELL I GET
IN THE PORT ARCADES
SHOPPING CENTRE ARE
THE DIFFERENT SMELLS
OF PEOPLE. CANBE NICE
SMELLS AND ODOURS OF
PEOPLE OF HOT - SWEET SMELL
(ESPECIALLY WITH IT BEING SO HOT)


ON 2 REALLY
HOT DAYS
YOU CAN SMELL
B.O!
Brown
Smell in
the face.



open packaging
Plastic New clothes smell
leather


INDOOR MARKET


eccles cakes
smell like
christmas dinner.


LIQUID - ARE THE
STRENGTH SMELL &
CAME IS PINK (THE)


Produce
Smell - sweet
Pastel - light - fragrant
Pink / Yellow / Lime
not certain
mush


SNOWDRIFTS.
RED.
GREEN.


SUMMER 2014

/CtB 2014 Canterbury

“Lyrical & Literal” – Two Canterbury Smells /upstairs at The Beaney / tiny
installation with 2 classic smells diffused differently / July 10 – 17 2014

TWO CANTERBURY SMELLS

: SUMMER 2014



LITERAL

&



LYRICAL



RQ#1 How can urban smells be collected?

The urban smells that were created have been collected entirely from their authentic sources. The constituent parts to the overall aroma of the greengrocers were all collected in situ and brought to the lab on the same day, retaining the freshness and clarity of odour. Similarly, when creating the smell of 'history', the items to be distilled were taken from locations almost entirely from within Canterbury city walls. These objects included prayer cushions, wood, incense and old books. The legitimacy of the source was paramount to this project.

RQ#2 How can perfume methods be used to extract urban smells?

Some in depth research in to techniques used within the perfume industry led to the successful use of two different methods: distillation and extraction. It was soon found that what may work very well as a method for one material was futile when applied to another. Ultimately, soft fruits and other botanicals with aromatic high notes were distilled using steam distillation, whereas old wood or musty fabric benefited from the steeping and reflux action within a Soxhlet extractor, retaining deep base notes and caramel-like tones that cannot be recovered via steam distillation.

RQ#3 What methods can be used to preserve urban smells?

It was found that within a few days of extraction or distillation, the distillates or 'hydrosols' soon grew mould. In order to prevent this and ensure a longer shelf life, steps were taken such as storing the scent bottles at a low temperature and adding a small amount of sodium benzoate [3], a safe preservative typically used in food which does not affect the smell or appearance of the distillate. This has prevented any mould growth and the aromas have remained fresh and accurate.

RQ#4 How might extracted urban smells be dispersed?

When the aromas of 'strawberries' and of 'history' were presented to the public in the form of an installation at the Beaneys House of Art & Knowledge, we used two different methods of dispersal. The first used cold air diffusers which utilises ultrasonic waves to disperse vapour, and the second consisted of more traditional scent bottles. The cold air diffusers proved to be a more popular system of olfactory delivery.

TWO CANTERBURY SMELLS : summer 2014



References

- [1] Patel P.N (2010) Extraction of Herbal Aromas. Oils from Solid Surfaces, 2 (6) pp. 4-6. Directory of Open Access Journals (DOAJ) [Online]. Available at: <http://dx.doi.org/10.1155/2010/230714> [Accessed 23.07.14]
- [2] Sella A. Royal Society of Chemistry (September 2007) Classic Kit: Soxhlet Extractor. Available at: <http://www.rsc.org/chemsocworld/classic/2007/September/ClassicKit/SoxhletExtractor.asp>
- [3] National Centre for Biotechnology Information (March 2005) Compound Summary for Sodium Benzoate. Available at: <http://pubchem.ncbi.nlm.nih.gov/compound/SodiumBenzoate>

Steam distillation

Steam distillation [1] is a method of separating natural aromatic compounds from their source without being destroyed by heat. By adding steam, the pressure within the system is increased and the material boils at a lower

temperature. This causes the volatile aromatic molecules to evaporate from the botanical material and condense, which is then collected and forms the scented distillate which is then bottled and preserved.

Soxhlet extraction

The Soxhlet extractor [2] was originally designed to extract fat from a solid material. The system works by heating a solvent in a round bottomed flask, which then condenses and drips down into the Soxhlet, which houses a

perforated thimble containing the matter to be extracted. When this is full, the liquid then refluxes back down into the flask and the process is repeated.

TWO CANTERBURY SMELLS

: SUMMER 2014



LITERAL

: summer fruit

THE SCENT FROM CANTERBURY'S GREENGROCERS EXTENDS INTO THE STREET AS WARM SUMMER TEMPERATURES HELP VOLATILISE THE AROMAS OF LOCALLY GROWN RED FRUITS. LOCAL FARMS PRODUCE JUICY RED STRAWBERRIES WHOSE SMELL COMBINES WITH OTHER SEASONAL CROPS. INDIVIDUAL SCENTS PERCEIVED OUTDOORS COMBINE INSIDE TO FORM A UNIQUE "INTERIOR GREENGROCERS' SHOP" FRAGRANCE.

SPECIFICALLY STRAWBERRY

THE CHARACTERISTIC AROMA OF A STRAWBERRY IS THE RESULT OF ABOUT A DOZEN DIFFERENT AROMA COMPOUNDS. A RIPE STRAWBERRY'S SMELL, AT 50 MILLIGRAMS PER KILO, LIES FAR ABOVE THE PERCEPTIBLE ODOUR THRESHOLD VALUE IN AIR.

PRODUCING NATURAL LOCAL SMELLS

ALL SCENTS PRESENTED HERE WERE MADE FROM LOCAL PRODUCE. SMELLMAP ARTIST, KATE McLEAN, AND SCENT DEVELOPMENT TECHNICIAN, LINNET RAINBOW, USED FAMILIAR PERFUMERY TECHNIQUES SUCH AS ENFLEURAGE, SOXHLET EXTRACTION AND STEAM DISTILLATION TO CAPTURE THE SMELL MOLECULES TO PRESERVE AND RECORD A MICROCOSM OF CANTERBURY'S SMELL LEGACY OF THE SUMMER OF 2014.



STEAM DISTILLATION

YOUR THOUGHTS

WHAT DO THESE SMELLS BRING TO YOUR MIND? THERE ARE OTHER SMELLS ASSOCIATED WITH CANTERBURY - ADD TO THE COLLECTION USING THE NOTEBOOK IN THE DRAWER - WRITE OR DRAW ABOUT THE SMELLS YOU HAVE NOTICED AND HOW THEY MAKE YOU THINK OF THE CITY. A SMELLWALKER RECENTLY SAID "IT IS GREAT TO USE A DIFFERENT SENSE TO EXPERIENCE LIFE."



LYRICAL

: history

A CITY RESIDENT EXCLAIMED "CANTERBURY SMELLS OF HISTORY!" GLOBALLY, PLACE-SPECIFIC CULTURAL HISTORIES HAVE VERY DIFFERENT AROMA ASSOCIATIONS DEPENDING ON LOCAL FOODS, CUSTOMS AND RITUALS. HERE, WITH MATERIALS COLLECTED IN LOCAL CHURCHES AND SITES OF PILGRIM RESTING PLACES WE EXTRACTED AND CREATED AN ABSTRACT SCENT OF THE CITY.

CAPTURING HISTORY

TAR-COATED WOOD, AN OLD PRINTED TEXT, INCENSE, CANDLES AND PRAYER CUSHIONS TOGETHER FORM OUR INTERPRETATION OF THE "HISTORY" OF CANTERBURY.

SMELLMAPS

KATE McLEAN'S RESEARCH AND ART/DESIGN PRACTICE SEEKS TO EXPLORE AND SHARE HUMAN UNDERSTANDING OF PLACES THROUGH THE UNIQUE SMELLSCAPES OF INTERNATIONAL CITIES.

SENSORYMAPS.COM | MCLEANKATE@MAC.COM

[illegible]

TWO CANTERBURY SMELLS
SLEEPER 2014



LYRICAL
history

LYRICAL
+ history

A CITY RESIDENT EXCLAIMED
"CANTERBURY SHELLS OF HISTORY!"
GLOBALLY, PLACE-SPECIFIC CULTURAL
HISTORIES HAVE VERY DIFFERENT
AROMA ASSOCIATIONS DEPENDING
ON LOCAL FOODS, CUSTOMS AND
RITUALS. HERE, WITH MATERIALS
COLLECTED IN LOCAL CHURCHES
AND SITES OF PILGRIM RESTING
PLACES WE EXTRACTED AND CREATED
AN ABSTRACT SCENT OF THE CITY
CAPTURING HISTORY



TWO CANTERBURY SMELLS

SUMMER 2014



LITERAL

mean the

THE CANTERBURY CANTERBURY
CANTERBURY CANTERBURY
CANTERBURY CANTERBURY
CANTERBURY CANTERBURY
CANTERBURY CANTERBURY

Literal is Nice

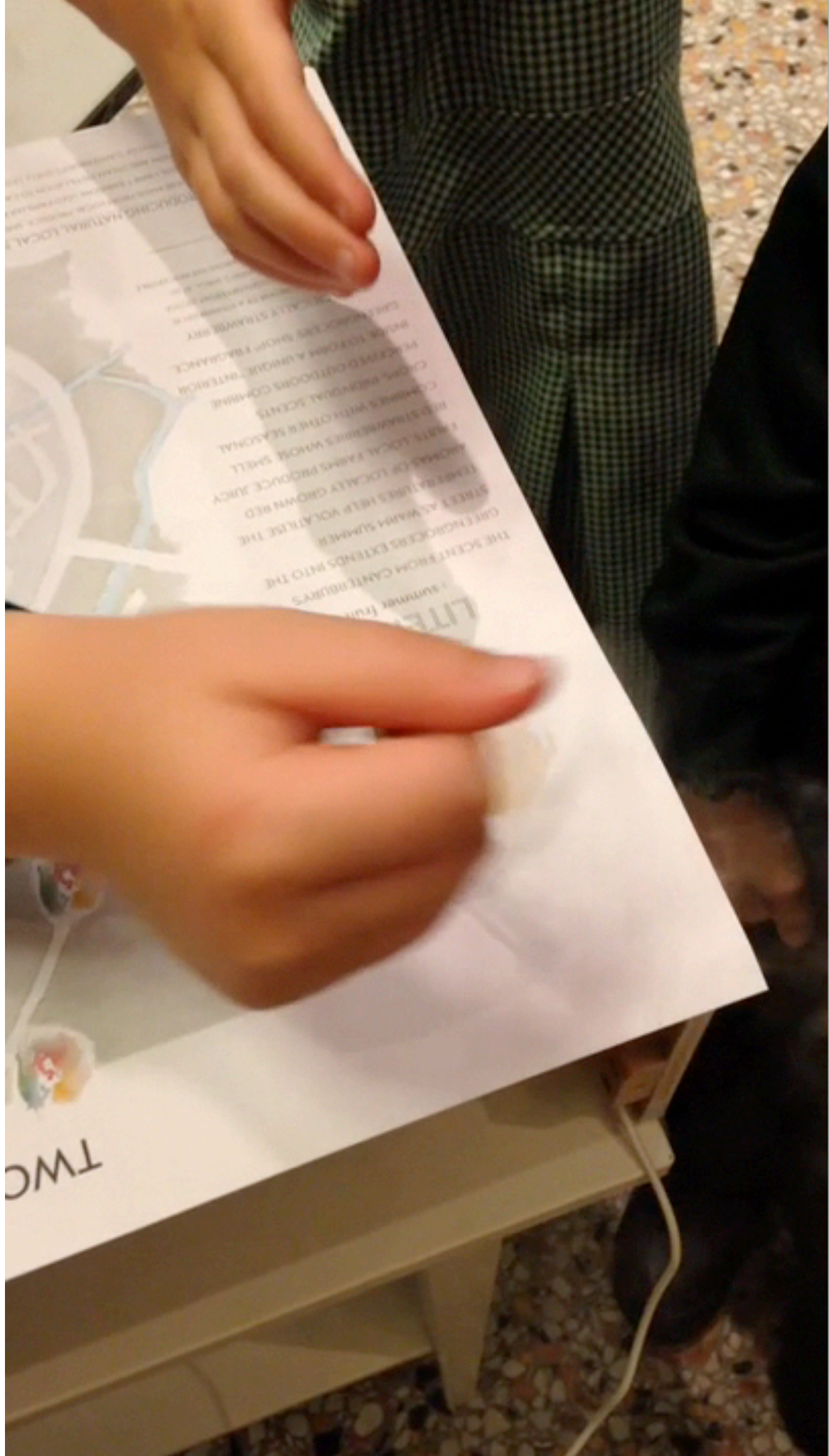
Literal Smells like an old house,
or an old bookshop

Literal Smells better.

Literal is very funny.

Literal Smells like an old house,
or an old bookshop

LYDIA



/JFK 2011 – 2014

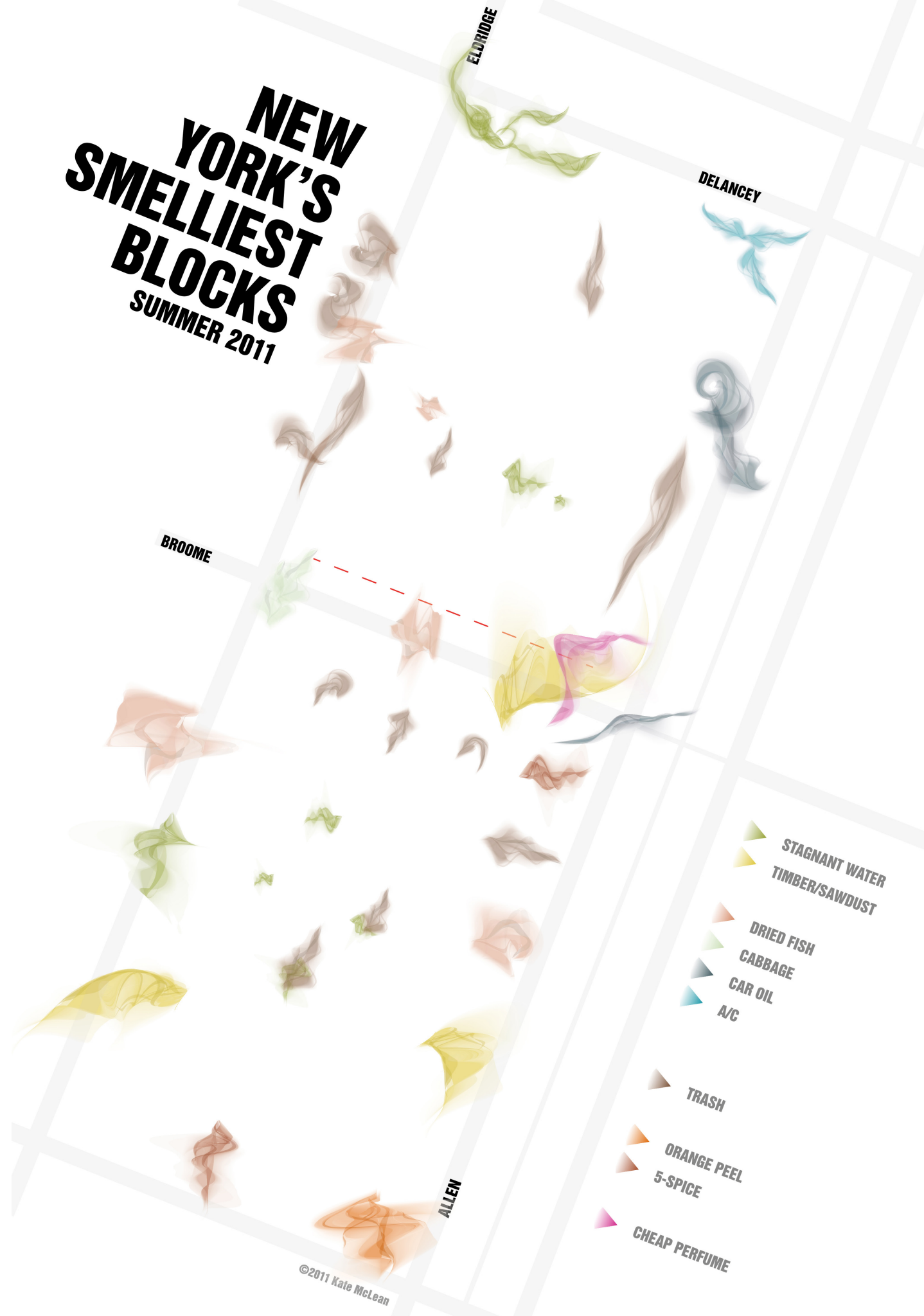
New York

McLean, K (2016) / “Mapping the City’s Smellscapes” in Harmon, K (Ed.) ‘You Are Here NYC: Mapping the Soul of the City’, Princeton Architectural Press

“New York’s Smelliest Blocks” in Antoniou, A., 2015. Mind the Map: Creative Mapmaking and Cartography, 01 edition. ed. Die Gestalten Verlag, Berlin.

NEW YORK'S SMELLIEST BLOCKS

SUMMER 2011



SUMMER 2013

NEW YORK'S THRESHOLDS OF SMELL

THE "STORE / STREET" SMELLS
OF A GREENWICH VILLAGE BLOCK



THRESHOLDS
--- Store / street threshold

STORE SMELLS

- Clean cotton spray
- Green tea
- Leather & rubber
- Watermelon / strawberry
- Bergamot / citrus / ylang-ylang blend
- Popcorn

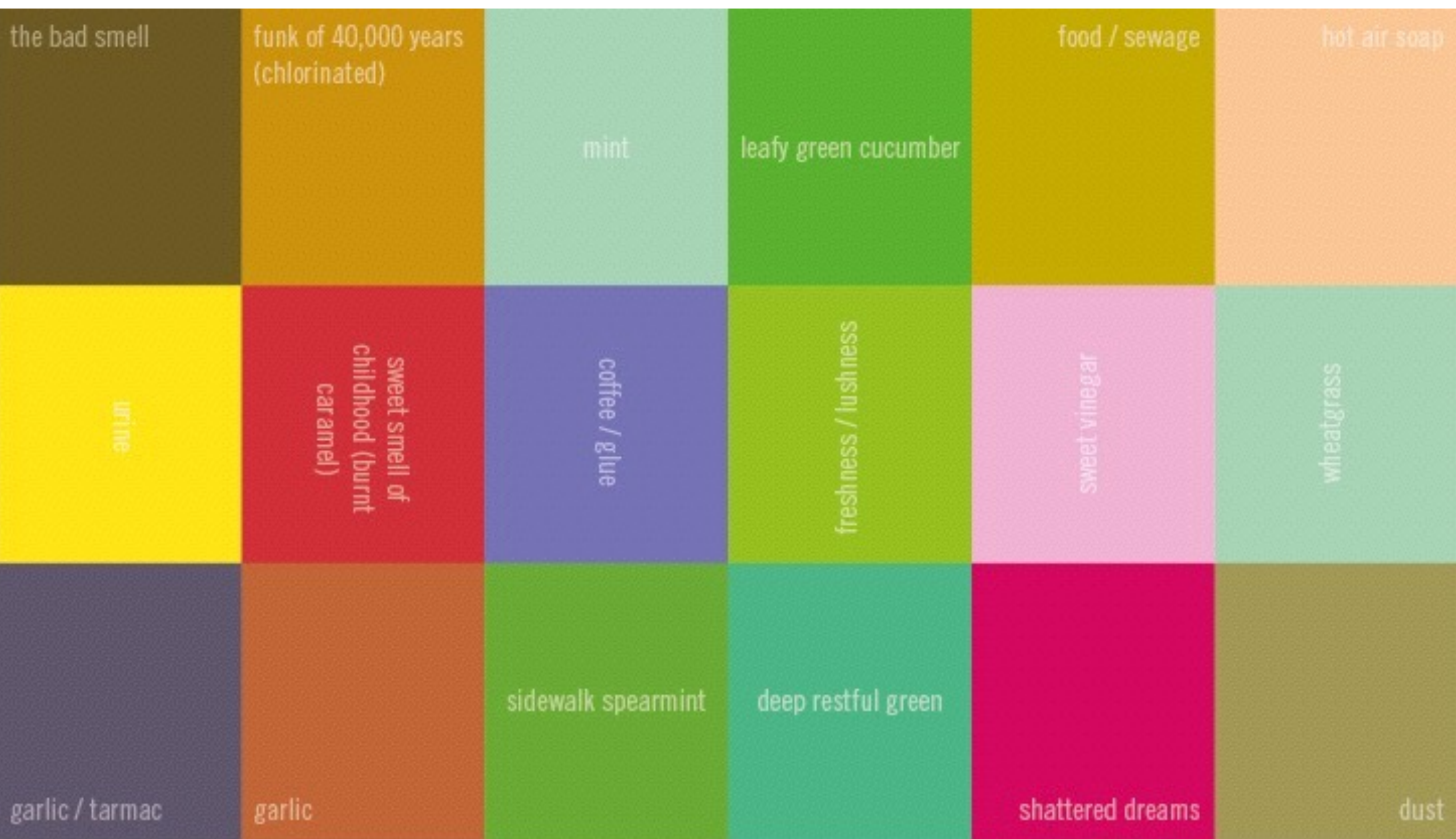
SHARED SMELLS

- Wood
- Floristry / green / damp
- Fresh baked cantucci
- Milky coffee

STREET SMELLS

- Urine
- Coconut
- Sewers / drains
- Aftershave
- Spearmint
- Horse poop
- Bitumen / tar
- Fabric softener
- Cigar Smoke
- Floral / rose
- Empty pizza box
- Musty cellar
- Old fish (strong)
- White pepper
- Subway





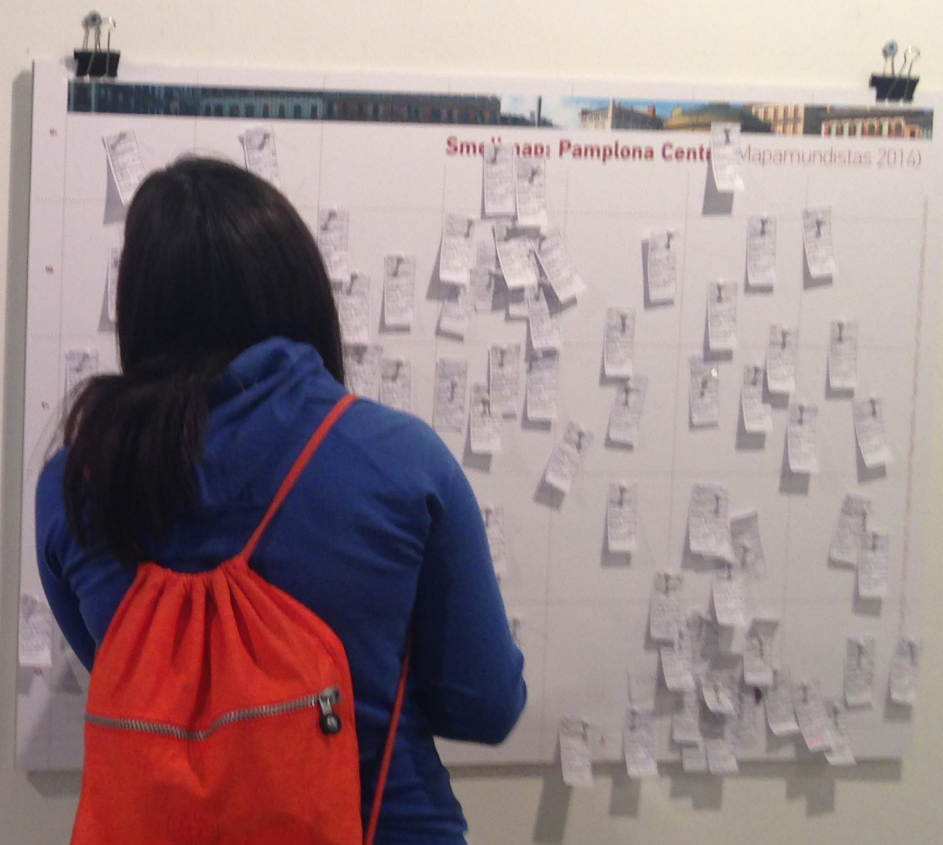
/PMP 2014

Pamplona

McLean, K (2017) "Mapping Urban Ephemerals" in Kent, A & Vujakovic, P (Eds.) 'Routledge Handbook of Mapping and Cartography', Routledge

Smellmap: Pamplona / 'Communicating the Intangible' / Group exhibition : Research Work in Progress / Royal College of Art / Sept 17 – 24 2016

Smellmap: Pamplona / Mapamundistas / smellwalks and live design creation, group show curated by Alexandra Baurès / Conde de Rodezno / October – November 2014



Olor *Caracoles Antos*

Lugar *Carlos III esquina Gorriti*

Esperado o inesperado

INTENSIDAD

Suave 1 2 3 4 Fuerte 5 6

SENSACION

Agradable 1 2 3 Desagradable 4 5 6

MOVILIDAD

Dinámico 1 2 3 4 Estático 5 6

Recuerdo o situación asociados al olor

chiringuito de playa

Olor *A Ciudad*

Lugar *calle Olite*

Esperado o inesperado

INTENSIDAD

Suave 1 2 3 4 Fuerte 5 6

SENSACION

Agradable 1 2 3 Desagradable 4 5 6

MOVILIDAD

Dinámico 1 2 3 Estático 4 5 6

Recuerdo o situación asociados al olor

Mi vida diaria

Olor

Lugar

Esperado o inesperado

INTENSIDAD

Suave 1 2 3 4 Fuerte 5 6

SENSACION

Agradable 1 2 3 4 Desagradable 5 6

MOVILIDAD

Dinámico 1 2 3 4 Estático 5 6

Recuerdo o situación asociados al olor

Trabajo

Olor *PETUL*

Lugar *CON*

Esperado o inesperado

INTENSIDAD

Suave 1 2 3 4 5 6

SENSACION

Agradable 1 2 3 4 5 6 Desagradable

MOVILIDAD

Dinámico 1 2 3 4 5 6 Estático

Recuerdo o situación asociados al olor

Olor

Lugar

Esperado o inesperado

INTENSIDAD

Suave 1 2 3 4 5 6 Fuerte

SENSACION

Agradable 1 2 3 4 5 6 Desagradable

MOVILIDAD

Dinámico 1 2 3 4 5 6 Estático

Recuerdo o situación asociados al olor

Petrela de la cara

Olor *CHURROS*

Lugar *CONDE RODEIRO*

Esperado o inesperado

INTENSIDAD

Suave 1 2 3 4 5 6 Fuerte

SENSACION

Agradable 1 2 3 Desagradable 4 5 6

MOVILIDAD

Dinámico 1 2 3 4 Estático 5 6

Recuerdo o situación asociados al olor

Olor *CEBOLLOS*

Lugar *CEBOLLOS*

Esperado o inesperado

INTENSIDAD

Suave 1 2 3 4 5 6 Fuerte

SENSACION

Agradable 1 2 3 4 5 6 Desagradable

MOVILIDAD

Dinámico 1 2 3 4 5 6 Estático

Recuerdo o situación asociados al olor

CEBOLLOS

Olor *cantarilla*

Lugar *Calle Bergami*

Esperado o inesperado

INTENSIDAD

Suave 1 2 3 4 Fuerte 5 6

SENSACION

Agradable 1 2 3 4 Desagradable 5 6

MOVILIDAD

Dinámico 1 2 3 4 5 Estático 6

Olor

Lugar

Esperado o inesperado

INTENSIDAD

Suave 1 2 3 4 5 6 Fuerte

SENSACION

Agradable 1 2 3 4 5 6 Desagradable

MOVILIDAD

Dinámico 1 2 3 4 5 6 Estático

Recuerdo o situación asociados al olor

OTROS AROMAS

Olor

Lugar

Esperado o inesperado

INTENSIDAD

Suave 1 2 3 4 5 6 Fuerte

SENSACION

Agradable 1 2 3 4 5 6 Desagradable

MOVILIDAD

Dinámico 1 2 3 4 5 6 Estático

Recuerdo o situación asociados al olor

Olor

Lugar

Esperado o inesperado

INTENSIDAD

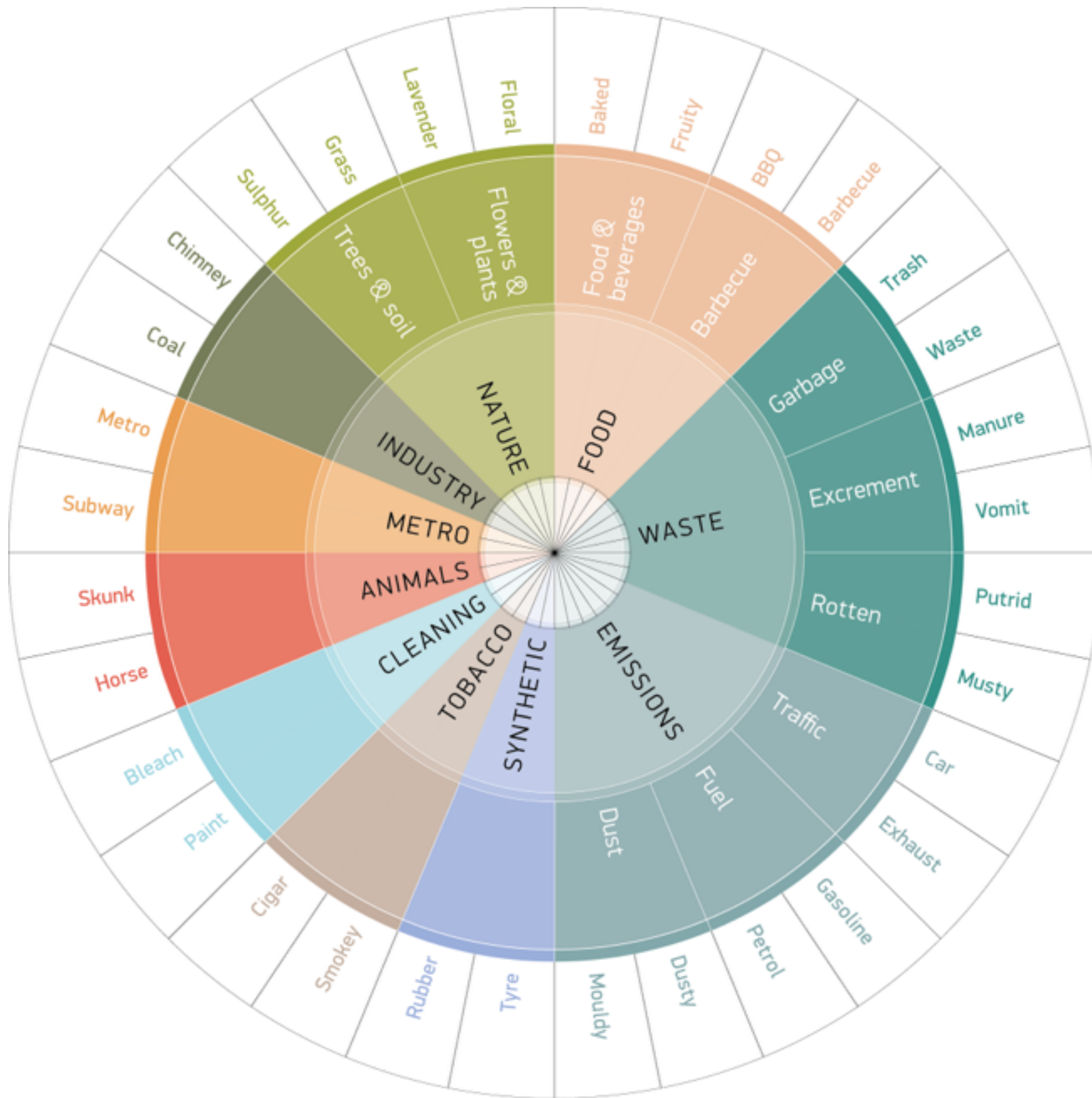
Suave 1 2 3 4 Fuerte 5 6

SENSACION

Agradable 1 2 3 4 Desagradable 5 6

MOVILIDAD

Dinámico 1 2 3 4 5 Estático 6



Urban Smellscape Aroma Wheel

(depicting background and episodic aromas only)
 Aiello, L., McLean, K., Quercia, D., Schifanella, R., 2015

Olfactory Classifications

An Incomplete Portolan of Combined Smelly Knowledges

Project Parameters

- Case study: **Pamplona, October 2014**
- Participants: **58 local people over 5 hours of 'smellwalks'**
- Total number of city smells identified: **441**
- City smells featured: **117 selected by local residents as representative of Pamplona**
- Other smell vocabularies from: **specialist smell classification systems**

Inner Ring – Classification Systems & Odour Wheels

LINNEAUS (1752) *Odores Medicamentorum*
EDWARDS (1992) *Fragrance Wheel*
NOBLE (revised 2002) *Wine Aroma Wheel*
CASTRO ET AL (2013) *Perceptual Dimensions*
HENSHAW (2014) *Urban*

Smell is characterised by a paucity of nomenclature necessitating olfactory industries to develop their own odour classification systems that are 'convenient for learning and remembering' (Dowthwaite, 2016). Visual odour wheels are structurally useful in that they 'help the user move from the broad, e.g., sweet or putrid, to the specific' (McGinley, 2014). My 'Smellscape Mapping' research is interested in vernacular smell descriptors, and in identifying which olfactory classification system, if any, may be the most useful to the practice. This visualisation of cross-referenced smell descriptors with five classification systems is designed to reveal connections and identify loose ends.

Five seminal classification systems were chosen from research in established fields: Botany (Linnaeus), Perfumery (Edwards), Wine (Noble), Neuroscience (Castro) and Urban Design (Henshaw) from which a total of **4 385 individual smell descriptors** were aggregated into an alphabetic listing including **127 smells identified by smellwalkers during primary research in Pamplona in 2014** conducted as part of the annual Sapsamundistas Visual Arts programme. Each smell descriptor links with a direct line to the classification(s) in which it has a mention. The Pamplona smells were mapped to possible categories.

References

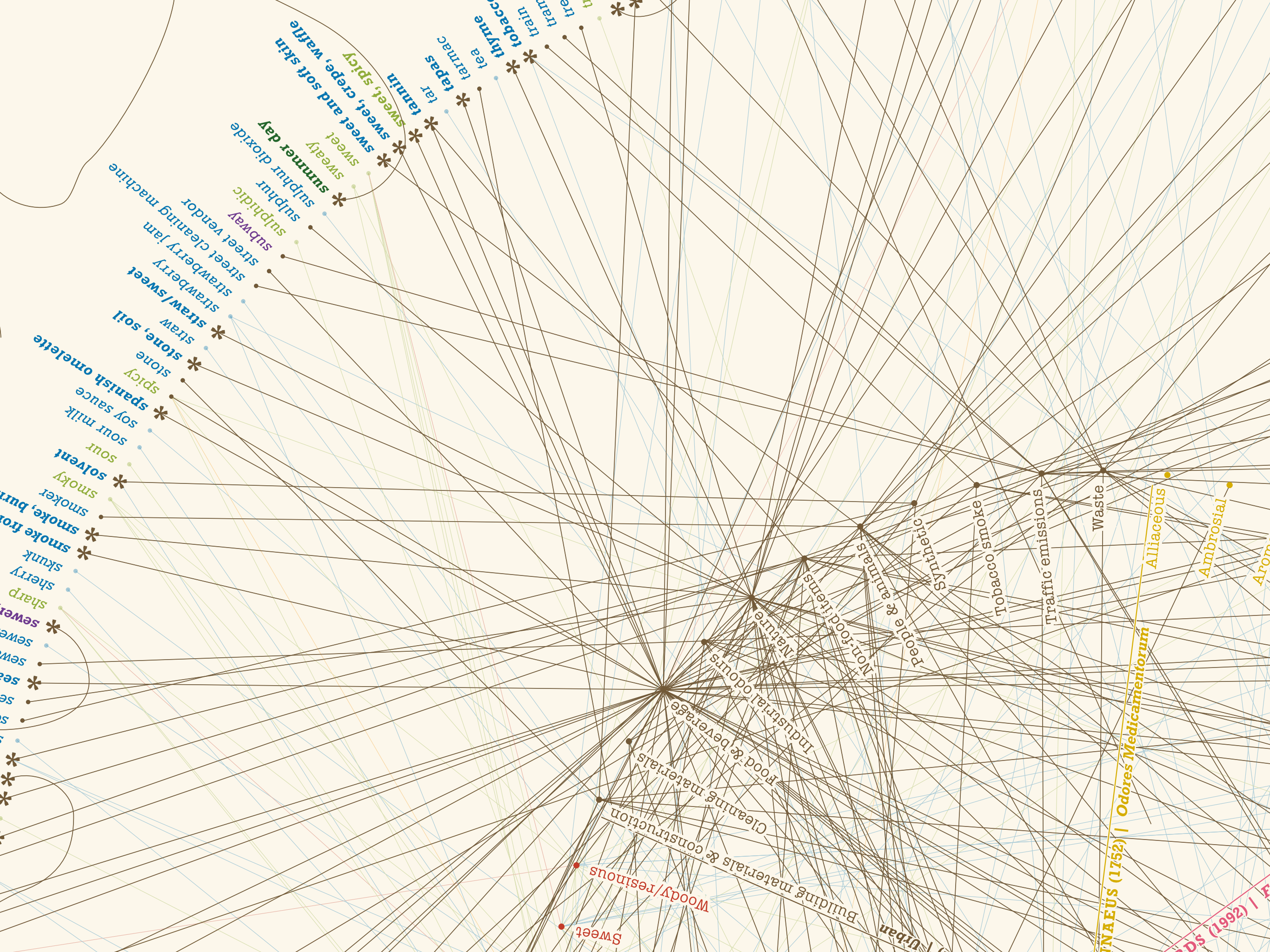
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- Noble, A. C. (n.d.). About the wheel. Retrieved August 30, 2016, from <http://winearoma.wheel.com>
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Outer Ring – Smell Descriptors

Odour source (cause / object / noun)
Descriptive (effect / adjective)
Metaphor (subjective association)
Place (geographic location)
Temporal (season / time of day)

Sperber (1975) indicates two ways to talk about smell; one derives from the cause and the other from the effect. For example 'blackberry' and 'mint' are the source of the smell, they cause it. Whereas 'disgusting' (human reaction) and 'burnt' (after-effect) are the experiences of a smell. In addition to cause and effect, my research reveals that some smell descriptors are complex in terms of their composition, and some are place-related (McLean, 2011) here exemplified by 'church' and 'hairstresser'. Some smells take the form of subjective associations metaphors that have very specific meaning to individuals e.g. 'pre-university exam'. There are also time-based odours which can be seasonal e.g. 'autumn' and 'summer'. However, the use of language in such cases is not clear cut and I can argue that 'pre-university exam' is both temporal and a metaphor just as 'market' is both a place and a temporal activity. Indeed all smells have a temporal dimension.

In the quest to reduce complexity odour classification, professional systems reveal disagreement as to how to best classify smells, thus indicating a complexity and confusion in using language as a representational method. Vernacular smell descriptors are often non-reductive, compound and enthusiastic, resisting obvious placement in any category. What to do with such smells?





All countries ▶ Spain ▶ Navarre ▶ Pamplona (airport)

Weather archive in Pamplona (airport), METAR

see on map

Weather archive at the weather station (20:00)

 Weather forecast

airport (ICAO) LEPP since September 26, 2012

View weather archive

Download weather archive

Weather statistics

1. Date range: 26.09.2014 – 26.09.2014

2. Select within the date range: ☒ all days ☐ only month October ☐ only date 20 October

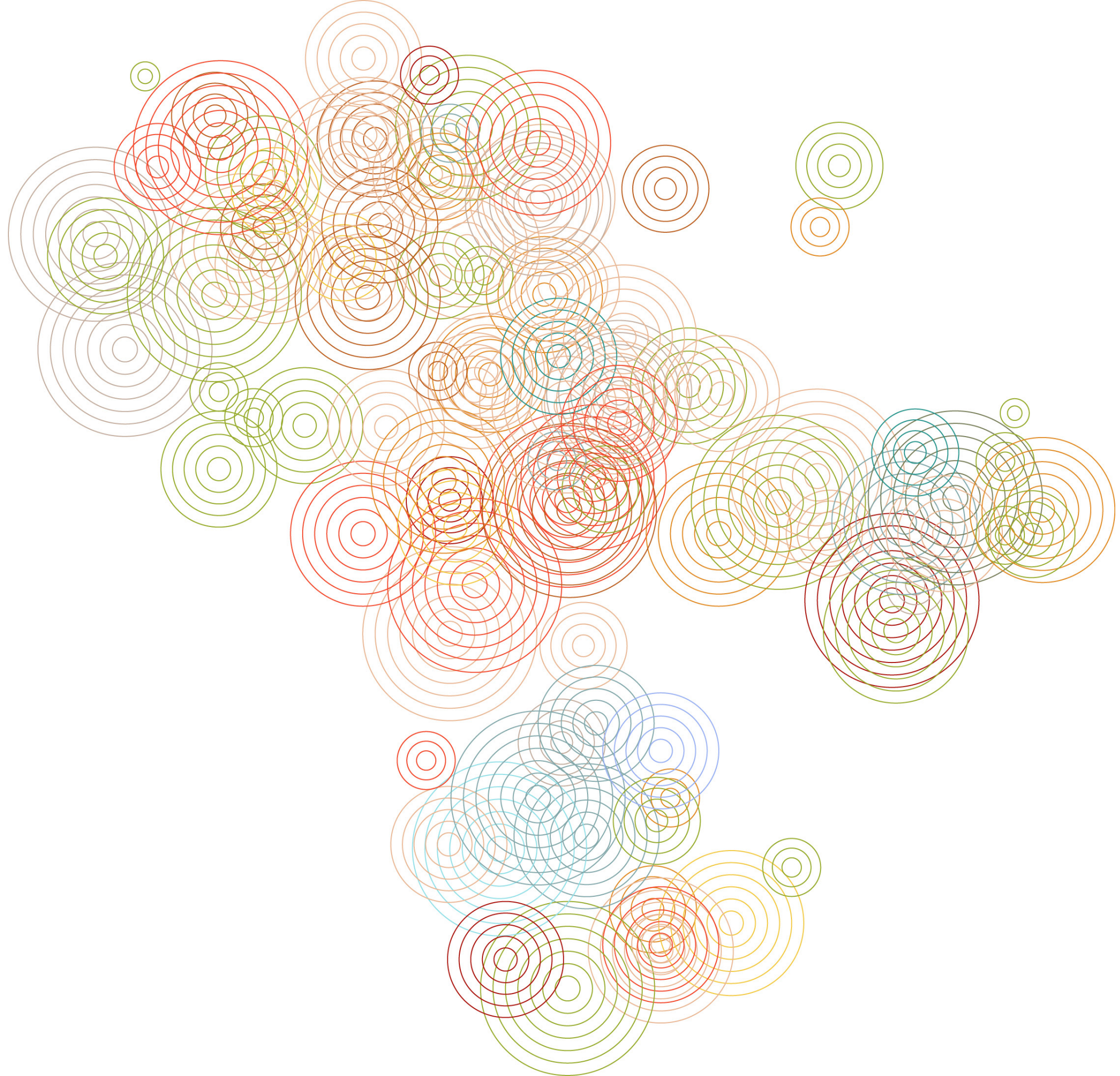
☐ only at the time of observation -period---

3. Selection parameters: T P0 P U DD FF FF10 VV

Calculate

DD, mean wind direction (compass points) at a height of 10-12 metres above the earth's surface over the 10-minute period immediately preceding the observation

Period	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	variable wind direction	calm	Number of observa
26.09.2014 - 26.09.2014, all days	2.6 %	7.9 %	2.6 %	0 %	0 %	0 %	0 %	2.6 %	7.9 %	0 %	0 %	0 %	7.9 %	13.2 %	5.3 %	15.8 %	10.5 %	23.7 %	38





/SGA 2015 Singapore

Scentscape mapping in 3D: Singapore / WiP at Royal College of Art / January 14 – 20, 2016

McLean, K (2016) 'Ex-formation as Method for Mapping Smellscapes', T&F Communication Design Vol. 3 , Issue No. 2, 2015

/smells reveal rhythms – Lefebvre



‘... smells are a part of rhythms, reveal them: odours of the morning and evening, of hours of sunlight or darkness, of rain or fine weather. The rhythm analyst observes and retains smells as traces that mark out rhythms.’

Lefebvre p. 31

Scent # (locate this scent on the map)	Name of scent	Scent intensity <small>(weak strong)</small>	Scent duration <small>(short long)</small>
1.	Passive smelling (scents that drift across your path) <i>Garbage</i>		

2.	exhaust		
----	---------	--	--

3.	cars		
----	------	--	--

4.	spices		
----	--------	--	--

5. <i>garage</i> to textiles	A sweet, flowery fragrance + mixed with dust/mildew, powder		
------------------------------------	--	--	--

6. perfume grove	Wet cardboard smelled like wooded & wet rope		
---------------------	---	--	--

7. <i>garage</i> to campsite	Air-con, synthetic, & sweet and freshener		
------------------------------------	--	--	--

12.	Fresh Laundry		
-----	---------------	--	--

11.	Food Exhaust + Garbage		
-----	------------------------	--	--

10.	dirty carpets		
-----	---------------	--	--

9.	chemical clothing (or passive smelling)		
----	--	--	--

8. bench	urine & perfume, metallic scent		
----------	------------------------------------	--	--



SCENT WALK SINGAPORE 2015

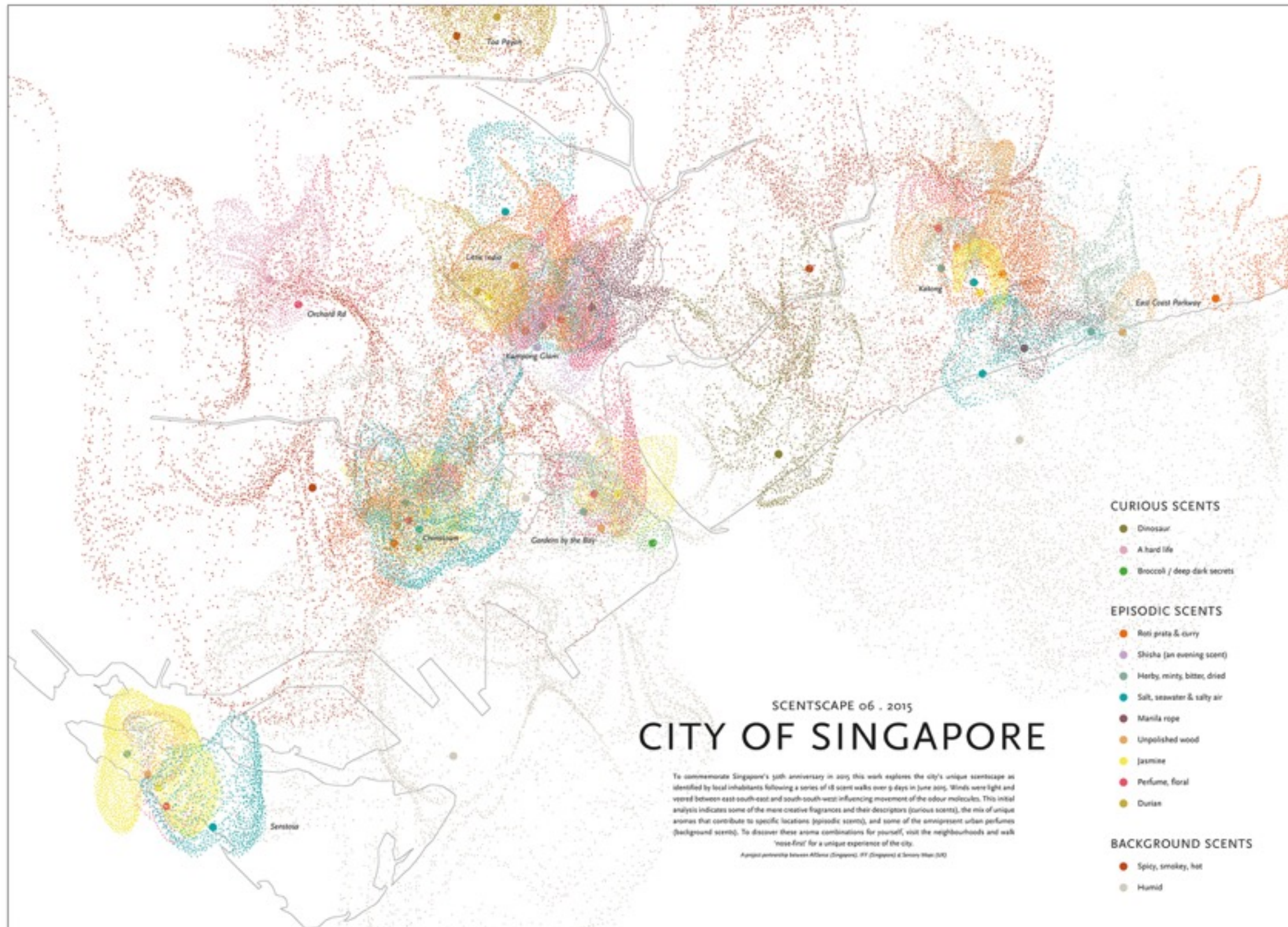
/am + pm smell intensity & duration – (2015)



Smellwalk transcription Kampong Glam #1 – 6 ©2016 Kate McLean

figs. 23 – 28 | Smellwalk transcription Kampong Glam #7 – 12 ©2016 Kate McLean

/Scentscape “static movement” – (2015)



/exhibit: Scentscape Singapore



/rhythms: cyclical, linear, multi-scalar

Cyclical: “undulations, vibrations,
returns and rotations” p. 84

Annual

Seasonal

Plant cycles

Months

Tidal ebb / flow

Diurnal / lunar alternation

Walking

Digestion

Breathing

Blinking

Linear: “identical facts separated
by periods of time” p. 84

Working day

Tick tock of a clock

Metronome

Engine noise

Dripping water

Hammer blows

Mechanical monotony

Live smellmapping

Quercia, D, Schifanella, R, Aiello, L, McLean, K (2015) 'Smelly Maps: The Digital Lives of Urban Smellscapes' in
AAAI Publications, Ninth International AAAI Conference on Web and Social Media, Oxford May 2015

/Live Smellmapping 2016

Venice

Scentscape mapping in 3D: Singapore / WiP at Royal College of Art / January 14 – 20, 2016

McLean, K (2016) 'Ex-formation as Method for Mapping Smellscapes', T&F Communication Design Vol. 3 , Issue No. 2, 2015

/Smellscaper: App in Beta development



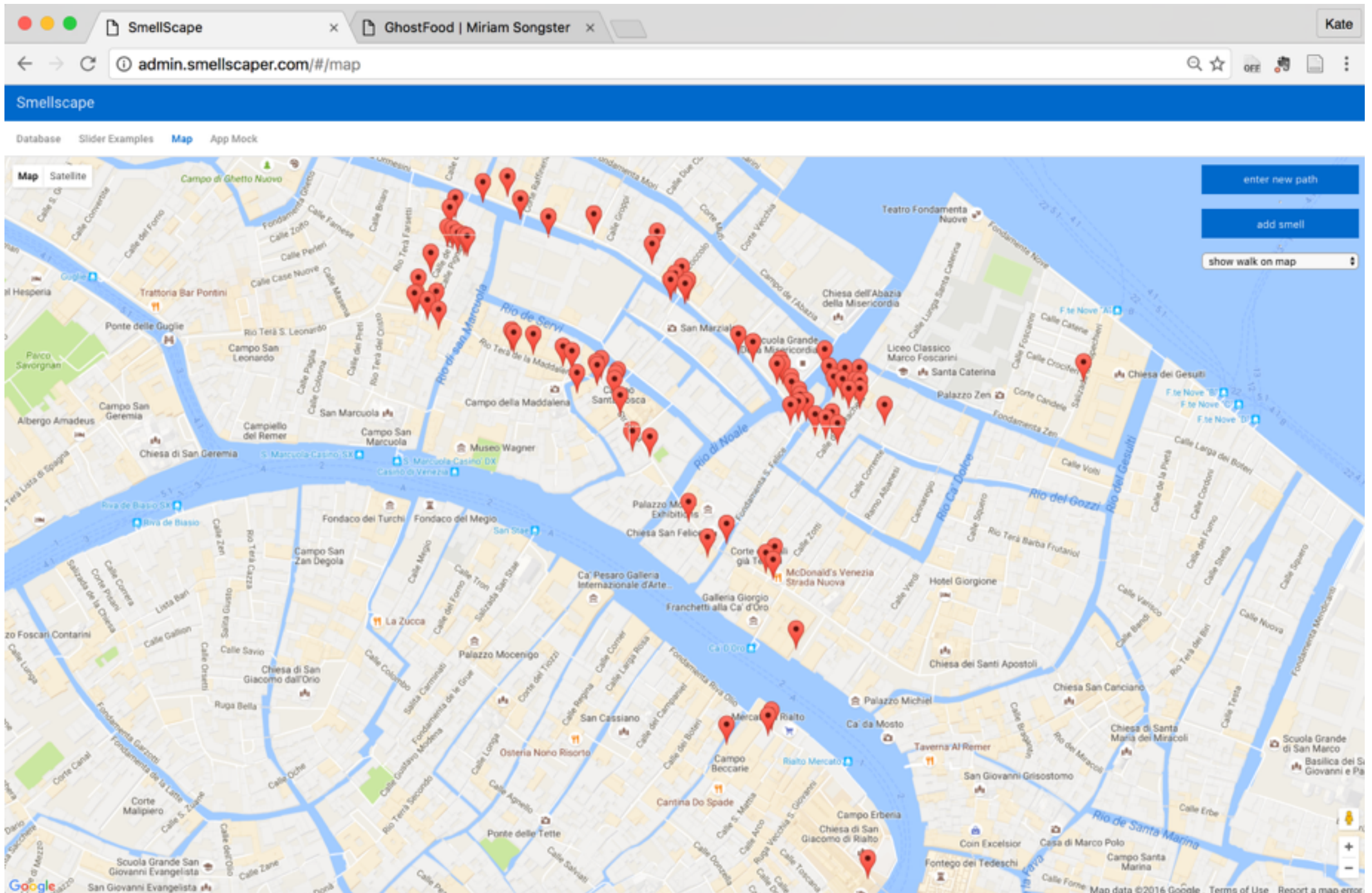
/testing: Venice smellwalk



SmellScape

admin.smellscaper.com/##

/iterative loop: mapping to make the map designed to...



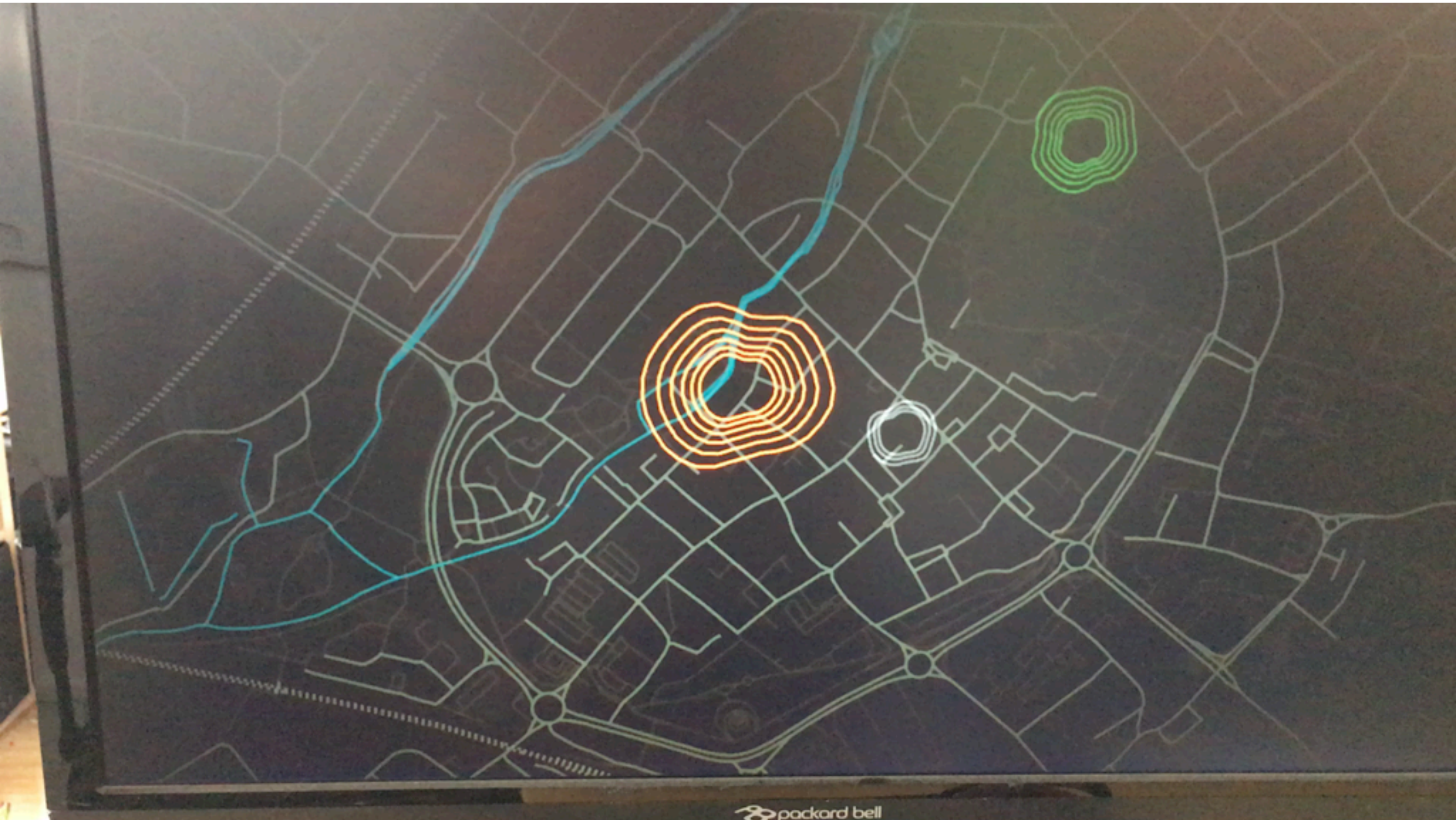
/futuricity: route modification as smell dependent?

The screenshot shows a web browser with two tabs: 'SmellScape' and 'GhostFood | Miriam Songster'. The address bar displays 'admin.smellscaper.com/#/map'. The SmellScape application has a dark blue header with the title 'SmellScape' and a navigation bar with links for 'Database', 'Slider Examples', 'Map' (which is active), and 'App Mock'. On the right side of the map, there are three buttons: 'enter new path', 'add smell', and 'show walk on map'. A data popup is open over a red pin on the map, titled 'Complex mix of smells'. It contains a table with the following data:

Name	Association	Visualisation	Expected	Likeability	Strength	Dynamicness	Wind-direction	Wind-speed
Basilicum Basil, cat pee			1000000	1000000	970000	94	2.36	

Below the table, there are sections for 'Description', 'Comments', and an 'Add comment:' field. A small 'agree' checkbox is present. At the bottom of the popup, there is a text input field labeled 'comment' and two buttons: 'post' (blue) and 'close' (orange).

/un-freezing the map



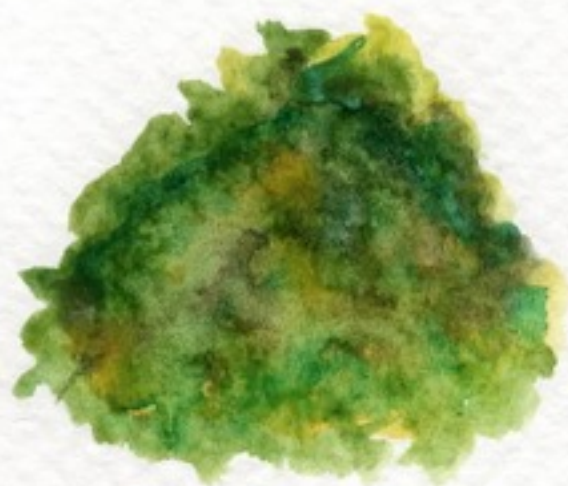
/IEV 2016

Kyiv

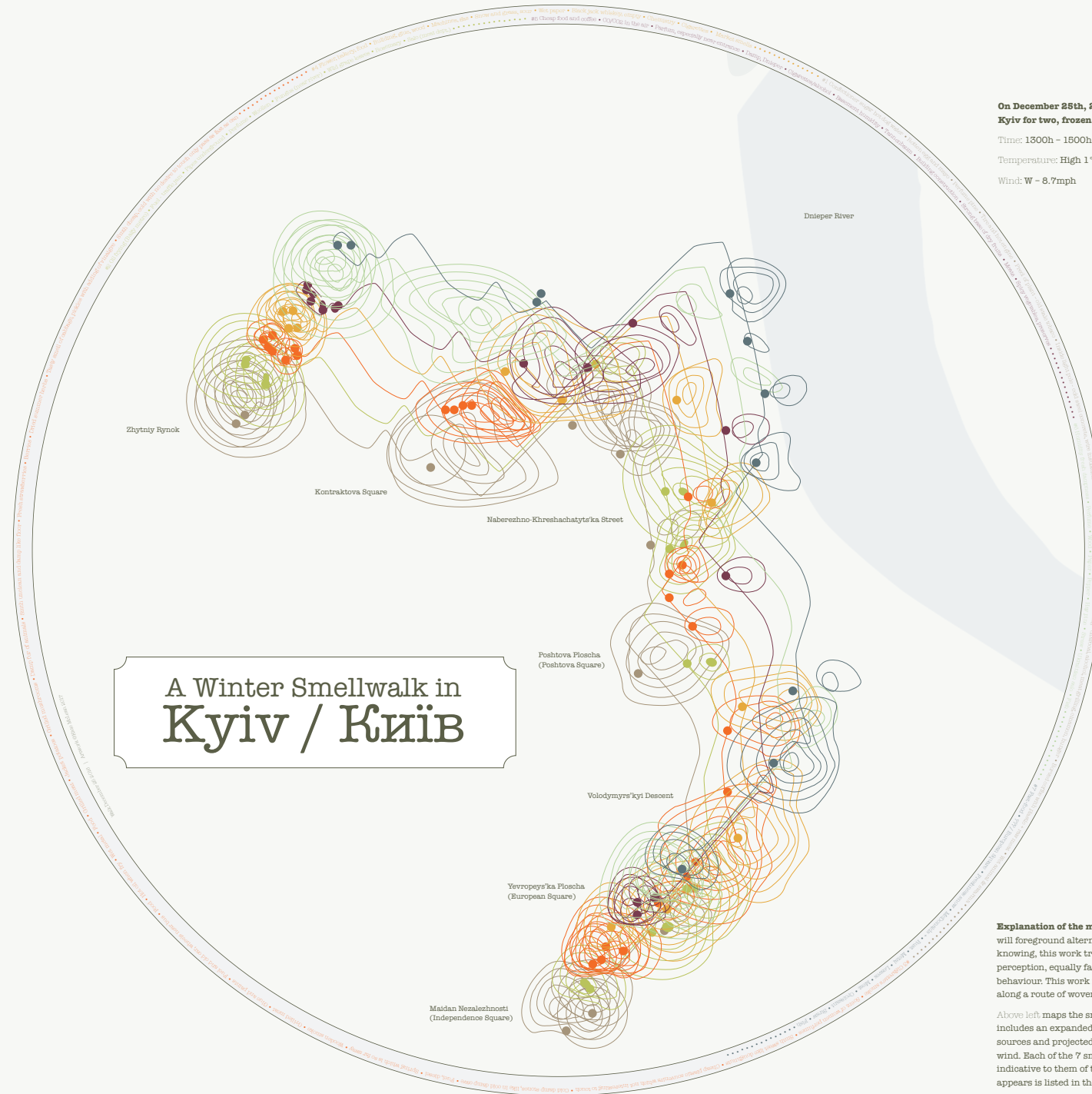


“Arrhythmic walking is also produced by the distractions and diversions offered by heterogenous activities and sights...” (Edensor, 2010)





It's a smell
of greenery
during winter
like old dry
wild grape,
christmass tree's
decorations,
fungus on the
street...
I would call that a
smell of islands of
summer in winter

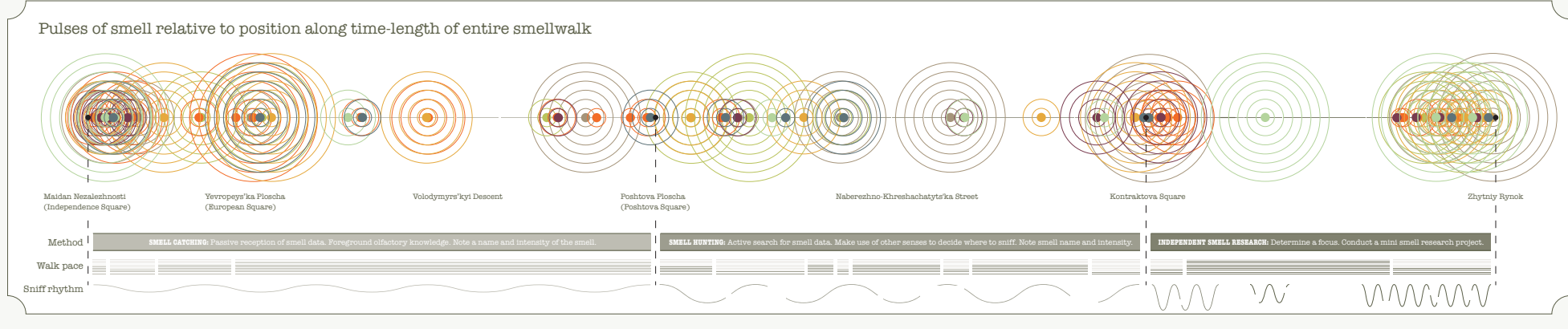


On December 28th, 2016 a group of 13 people smellwalked Kyiv for two, frozen, hours.
 Time: 1300h - 1600h
 Temperature: High 1°C
 Wind: W - 8.7mph

Explanation of the mapping: Speculating that future generations will foreground alternative sensory modalities as ways of knowing, this work treats smells as affordances of visual perception, equally facts of the environment and of human behaviour. This work is a mapping of ephemeral information along a route of woven, olfactory trails.

Above left maps the smellwalk, which started at Maidan, and includes an expanded view of 7 individual trails showing smell sources and projected smell shapes in the light, westerly winter wind. Each of the 7 smellwalkers is represented by a colour indicative to them of the Kyiv smellscape. Every smell that appears is listed in the outer ring of the map.

Below marks the cumulative pulse points of smell detection along the route as it unfolds in space, time, and mode of smelling. Concentrations occur in confined spaces and at stopping points.



Smellwalking as (performative) mapping

Smellwalking is mapping (for each person involved)

Smellwalking creates possibility for mapping (through notes)

Mapping the smellwalk in motion reveals how smells have their own subtle and mesmerising beats, pulses and fades... these rhythms interact intimately with each other, over a landscape, through the dimensionally of constantly changing atmospheres

/the smellwalk
designing encounters



Reflection-in-Practice
DEVELOPMENT OF THE
SMELLWALK
(METHODOLOGIES & TOOLS)

GROUP WALK

BUDDY WALK

SMELLFIE

APP WALK

SOLO WALK

SMELLWALKING IS
SMELLMAPPING

/smell catching (10 mins)



Photo: Harkin, B of Smellwalk NYC @ Kate McLean (2014)

/smell hunting (10 mins)



Photo: Harkin, B of Smellwalk NYC @ Kate McLean (2014)

/free smelling (10 mins)



Photo: Lydford, V of Smellwalk Pamplona @ Kate McLean (2014)

/smellnotes

Handwritten form titled "Ciudad Calle Olite" with sections for "Lugar", "Esperado o inesperado", "INTENSIDAD", "SENSACION", "MOVILIDAD", and "Recuerdo o situación asociados al olor". The form is filled with handwritten notes and ratings.

On a really hot day
you can smell
B.O!
Brown
Smack in
the face.

open packaging
Plastic New clothes smell
leather

Smellscaper app interface showing a map of Amsterdam with a red location pin. The app has three main buttons: "ADD A SMELLNOTE", "DISPLAY SMELLMAP", and "SMELLWALK". The bottom status bar says "Welcome SMELLSCAPER Tina".

Smellscaper app interface showing a form for adding a new smell note. The form includes fields for "SMELL NAME", "SMELL EXPECTATION" (Expected/Unexpected), "SMELL PHOTO", "SMELL INTENSITY" (Weak/Strong), "SMELL DURATION" (Short/Long), "SMELL PREFERENCE" (Dislike/Like), and "SMELL ASSOCIATION".

Smell Map

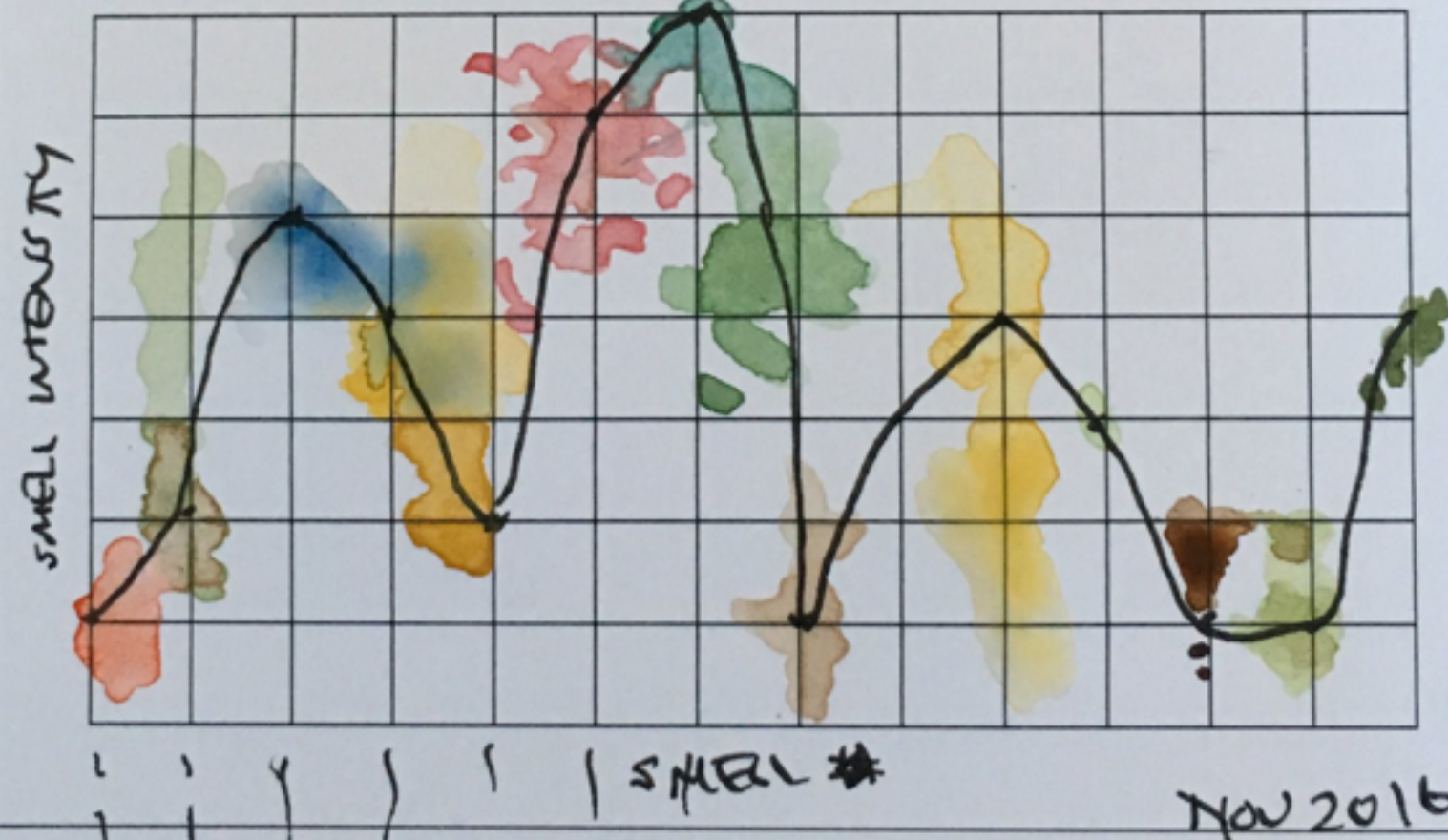
Amsterdam
SPRING 2013

Odour Intensity						
0	1	2	3	4	5	6
no odor	very weak	weak	distinct	strong	v. strong	intolerable

Smell # (locate on map)	Description	Odour Intensity (0 - 6)	Expected smell? Y/N	How does it make you feel? Please describe any immediate memories or associations you have with this smell.	Smell rating (1 - 5) 1 = Dislike 5 = Like
1.	Fresh paint, solvent	3	N	Home improvement	2
2.	Entrance of Top's shop - leather	2	Y	Soft leather, new shoes, first day of school	4
3.	"Frénce" (Abercrombie & Fitch)	4	N	New York, 5th Ave, Entrance of the A&F flagship.	5
4.	Bakery	4	Y	Comforting, familiar smell	5
5.	different kinds of tulips	3	Y	orange tulips: spicy, sofian, waxy-like red tulips: from painting-like: home room garden	5
6.	Red tulips	4	Y	sweet rose, honey-like - cosmetic cream	5
7.	Dry grass, hay-like	3	Y	countryside, holidays, sun	5

Smellnote design iterations Kate McLean (2014, 2015, 2016)

SMELL VISUALISER: MARK 1



dotted line

/thank you

for listening to “Un-freezing the map”

@katemclean | sensorymaps.com



/Life of Pi 2013

Midway to Midway

There is just one smell recall from Pi Patel during his 227 days in a life boat with a 450-pound 3-year old Royal Bengal tiger:

"I remember the smell of the spent hand-flare shells. By some freak of chemistry they smelled exactly like cumin. It was intoxicating. I sniffed the plastic shells and immediately Pondicherry came to life in my mind, a marvellous relief from the disappointment of calling for relief and not being heard. The experience was very strong, nearly a hallucination. From a single smell a whole town arose. (Now, when I smell cumin, I see the Pacific Ocean.)"

Martel, Y (2003) *The Life of Pi* pp. 199-200

